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SOLID WASTE DISPOSAL ACT AMENDMENTS OF 1983

HEARINGS

BEFORE THE

SUBCOMMITTEE ON ENVIRONMENTAL POLLUTION

OF THE

COMMITTEE ON
ENVIRONMENT AND PUBLIC WORKS
UNITED STATES SENATE

NINETY-EIGHTH CONGRESS

FIRST SESSION

ON

S. 757

A BILL TO AMEND THE SOLID WASTE DISPOSAL ACT TO AUTHORIZE FUNDS FOR FISCAL YEARS 1983, 1984, 1985, 1986, AND 1987, AND FOR OTHER PURPOSES

JUNE 8 AND 9, 1983

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CONTENTS

JUNE 8, 1983

OPENING STATEMENTS

Page

Chafee, Hon. John H., U.S. Senator from the State of Rhode Island 3
Mitchell, Hon. George J., U.S. Senator from the State of Maine 5
Randolph, Hon. Jennings, U.S. Senator from the State of West Virginia 6

WITNESSES

Early, A. Blakeman, Washington representative, Sierra Club 43
  Prepared statement 203
Danforth, Hon. John C., U.S. Senator from the State of Missouri 1
  Prepared statement 51
Dinkins, Carol, Assistant Attorney General, Land and Natural Resources Division, Department of Justice 15
  Prepared statement 91
  Responses to written questions 119
Kreutzen, Richard W., general manager, Environmental Affairs, Chevron, USA 37
  Prepared statement 161
  Response to a request for additional views 183
Mobley, John, president, Mobley Industries, Austin, Tex 35
  Prepared statement 145
Mossholder, Nelson, technical director, Stablex Corp 39
  Prepared statement 187
Stoddard, Kent, director, toxic waste assessment program, Office of Appropriate Technology, State of California 31
  Prepared statement 131
Thomas, Lee M., Acting Assistant Administrator for Solid Waste and Emergency Response, Environmental Protection Agency, accompanied by John Skinner, Director, Office of Solid Waste; Gene Lucero, Director, Office of Waste Programs Enforcement; and Mike Brown, enforcement counsel, Office of Legal and Enforcement Counsel 8
  Prepared statement 53
  Responses to written questions 74

JUNE 9, 1983 (p. 241)

WITNESSES

Brandon, Barbara H., assistant counsel, Pennsylvania Department of Environmental Resources 273
  Prepared statement 402
Contney, John J., executive director, Textile Rental Services Association of America 252
  Prepared statement 367
Dodd, Hon. Christopher J., U.S. Senator from the State of Connecticut 242
  Prepared statement 290
Fahey, Richard P., attorney, Columbus, Ohio 274
  Prepared statement 417
Gerard, Joseph G., vice president, Government Affairs, National Association of Furniture Manufacturers 247
  Prepared statement 342

Page
Kuykendall, Robert G., manager, Division of Land Pollution Control, Illinois Environmental Protection Agency 269
    Prepared statement 390
Lennett, David J., staff attorney, Environmental Defense Fund 241, 245
    Prepared statement 301
Mullen, Hugh, director, Government Relations, Conversion Systems, Inc 249
    Prepared statement 351
Mullins, Morton L., manager, Environmental Engineering, Monsanto Co 283
    Prepared statement 433
Oxer, J. Paul, National Society of Professional Engineers 286
    Prepared statement 459
Perkins, Rowan, senior consultant, E. I. du Pont Co 281
    Prepared statement 425
Spivack, Herbert, L.president, Mereco Products Division, Metachem Resins Corp 253
    Prepared statement 379

ADDITIONAL MATERIAL

S. 757 212
Statements:
    Eagleton, Hon. Thomas F., U.S. Senator from the State of Missouri 56
    American Consulting Engineers Council 471
    American Textile Manufacturers Institute 477
    At-Sea Incineration, Inc 481
    Atlantic Richfield Co 492
    Automotive Legislative Council of America 500
    Concerned Citizens of Adamstown 503
    Conversion Systems, Inc 505
    Envirite Corp 507
    National Association of Manufacturing 523
    National Association of Recycling Industries, Inc 527
    National Federation of Independent Business 529
    National Oil Jobbers Council 540
    National Tire Dealers and Retreaders Association 545
    Schlegal Corp 558

SOLID WASTE DISPOSAL ACT AMENDMENTS OF 1983

WEDNESDAY, JUNE 8, 1983

U.S. Senate,
Committee on Environment and Public Works,
Subcommittee on Environmental Pollution,
Washington, D.C.

The subcommittee met, at 10 a.m., in room SD-406, Dirksen Senate Office Building, Hon. John H. Chafee (chairman of the subcommittee) presiding.

Present: Senators Chafee, Stafford, Randolph, and Mitchell.

Senator **Chafee**. Ladies and gentlemen, we welcome everyone here today. The purpose of the hearing is in connection with the amendments to the Solid Waste Disposal Act as amended by the Resource Conservation and Recovery Act, so-called RCRA.

However, before having any opening statements I see our very distinguished colleague, from the State of Missouri, Senator Danforth is here. His statement, I believe, will deal with something other than RCRA itself. So Senator Danforth, we welcome you here and rather than having you listen to lengthy statements on RCRA, we would be glad to hear what you have to say on, as I understand it, the Superfund.

Senator **Danforth**. That is right, Mr. Chairman.

Senator **Chafee**. Senator, go right ahead and we welcome you to this committee.

STATEMENT OF HON. JOHN C. DANFORTH, U.S. SENATOR FROM THE STATE OF MISSOURI

Senator **Danforth**. Thank you very much, Mr. Chairman and Senator Stafford.

I realize that this is a hearing on the Solid Waste Disposal Act Amendments of 1983. My purpose in being here today concerns the Superfund program, and my specific request to the committee is to consider an amendment to this bill which deals with Superfund.

Our State of Missouri unfortunately has become the laboratory case of dioxin and the use of the Superfund. We have been the first major instance of the Superfund being used with respect to the situation in Times Beach, Mo. In the process of going through the Times Beach tragedy, we have learned certain things about the functioning of the Superfund, and therefore we are proposing that amendments be added to the solid waste bill dealing with the Superfund which would provide some greater flexibility and greater discretion in the hands of EPA in administering the Superfund.

Basically the problems we found are these. Take the situation of a small business person doing business in an area where there has been dioxin, say somebody in the business of leasing heavy equipment. Dioxin is found. There is a temporary relocation of the whole community. The community is either sealed off or all but sealed off—that is, there is a tremendous sense of danger to anybody on the outside coming into the community.

A business person has all sources of revenue wiped out. Nobody is going to come in and do business with him. At the same time he is up to his ears in debt, and he simply is unable to service the debt. He is unable to pay the interest he owes. He is unable to make payments on the principal of the debt. That is, of course, a prescription for bankruptcy. So one of the recommendations and one of the proposals in this amendment is that the EPA be allowed to pay principal and interest on business debts during the time of temporary relocation.

Similarly, with respect to aid to individuals who are employed by businesses in hazardous waste sites—right now, if a person is employed by a business that is hit by a tornado or by a flood, that person is eligible for certain disaster assistance, food stamps, reemployment assistance, cash grants in case of special hardship situations. That same ability to have the Government provide a cushion in the case of natural disaster is not the case where there is a manmade disaster.

This amendment which is proposed would provide that the EPA could give such aid to individuals who lose their jobs during the period of temporary relocation.

Finally, it would provide greater flexibility to the EPA than what is currently provided under EPA regulations with respect to obviously uninhabitable places. In Gray Summit, Mo. right now there is a trailer park. It has been found to have remarkably high dioxin levels. And it is clearly uninhabitable. The EPA takes the position that under the current law it is required to go through two phases. One is a temporary relocation and the second, only after the final or temporary relocation, is the permanent relocation.

In essence what happens is that people are moved into motels, there is an analysis made, and then maybe some months afterward there is the decision to buy out the community. What we would like to do is to provide greater flexibility in the law so that in the case of obvious uninhabitability the EPA could make a summary determination of the permanent nature of the problem and could make a decision for permanent relocation.

So that is essentially it, Mr. Chairman. This amendment is sponsored by Senator Eagleton and myself. It is with the active cooperation and assistance and input of our Governor, Christopher Bond, and I submit it to the committee for its consideration.

Also, Mr. Chairman, I have a prepared text which I have not read and which I would submit to the committee to be inserted into the record.

Senator Chafee. We will certainly place that in the record.

We appreciate your suggestions. You have been through an actual situation in Missouri and you know what the effects of the collateral damages of a hazardous waste disposal in an improper setting has brought about. So we appreciate your thoughts on it.

Senator **Danforth**. Mr. Chairman, Senator Eagleton also has a statement. He is not able to be here right now. But he would like to submit that.

Senator **Chafee**. We will certainly include that in the record.

I know Senator Eagleton's interest in this as well as your deep concern which has been evidenced so many times in connection with the Times Beach matter.

Senator Stafford, do you have any comments?

Senator **Stafford**. Not to any extent, Mr. Chairman, I think it is a very good thing that our colleague, Senator Danforth, has brought this matter to our attention. At some later time the committee, I hope, will have a chance to address the Superfund issue, but looking at it right now certainly it is not something that would do any harm to the situation.

We will certainly explore what you have told us.

Senator **Chafee**. Thank you very much, Senator Danforth. We appreciate your coming.

Senator **Danforth**. Thank you, Mr. Chairman.

OPENING STATEMENT OF HON. JOHN H. CHAFEE, U.S. SENATOR FROM THE STATE OF RHODE ISLAND

Senator **Chafee**. Again, I want to welcome all here as we start these hearings and consider amendments to the Solid Waste Disposal Act as amended by RCRA. Over the past several years there has been an increasing interest in the disposal of hazardous wastes. It started, perhaps, with the Love Canal and then of course the Times Beach, Mo., problem brought the problem even closer to our attention.

I, and I believe I speak for all the members of the subcommittee and indeed for the full committee, am interested in strengthening the National Hazardous Waste Management Program because we are only now beginning to discover the magnitude and the extent of the problems that have been generated by the improper disposal of hazardous wastes in the past and in the present.

We have a dilemma here. We have an industrial society in the course of producing products, those manufacturing processes produced byproducts or wastes which pose a serious risk to public health and the environment. Unless we can safely handle or dispose of those wastes we threaten a society which supports the sale and use of those primary products. So we have a choice. Either stop the manufacturer or control the disposal of those wastes in a manner that is protective of public health and the environment.

Congress originally responded to the problem of hazardous waste with the RCRA Act. It provides for the establishment of broad national programs for the regulation of hazardous wastes, starting with the generation, through transportation, storage, and treatment right up through disposal. Adding to this initiative Congress, in 1980, enacted the so-called Superfund to address the environmental problems posed by uncontrolled hazardous waste sites and spills.

Primarily these were directed to sites that accumulated in the past. Sites that we didn't know about, but suspected were there and indeed were there and turned out to be even more than we thought were present.

The progress EPA has experienced in implementing the hazardous waste regulatory program has been slow. EPA has promulgated the final pieces of the core RCRA regulations and the actual permitting of facilities can begin in earnest. The purpose if the bill we discuss today is to correct some of the deficiencies of the current law and to add provisions which broaden coverage of the current law. One of the problem initiatives contained in the bill which Senator Randolph and I introduced in March is to provide the necessary legislative incentives for movement away from landfill of hazardous wastes to other treatment or disposal strategies.

The bill provides for the prohibition of land disposal of specific hazardous wastes if such practices are not protective of public health and the environment. Candidates for prohibition include wastes that are highly mobile, persistent, toxic, or accumulated. I believe the prohibition will promote the development of alternative treatment recovery or disposal options for these substances.

Our witnesses today will discuss the validity of such an approach.

An important element of any waste management approach is the handling of solid wastes in sanitary landfills. No matter how carefully we regulate hazardous wastes there are going to be instances where hazardous wastes are dumped in sanitary landfills. The emphasis in State and local programs has shifted from solid waste to hazardous waste and as a result the city dump which we all know, the sanitary landfill, receives little attention at the Federal level and indeed the attention at the State or local level varies greatly. I believe we must now begin to look at whether such facilities—that is, the solid waste or the landfill, city dump—we have got to look at whether those facilities should be subject to some minimum requirements.

The RCRA bill we have before us today closes a loophole which arouses a great deal of attention and interest in the regulated community. That is the regulations dealing with the generators of so-called small quantities defined as less than a thousand kilograms a month. That was originally established so that EPA could concentrate its efforts on the regulation of the larger generators. Now that EPA has in place a regulatory program for the larger generators the regulations for small quantity generators became a priority issue. The bill we have before us today sets up a phase program for regulation of small quantity generators beginning with the immediate notification process and moving to a formal regulatory program for small quantity generators tailored to their particular characteristics.

In an effort to extend coverage of the RCRA law the bill also calls for an expanded list of hazardous wastes; it calls for the adoption of additional waste characteristics and a better delisting procedure. In addition we will authorize the establishment of a new program for determing that some wastes are harzardous per se simply because they contain high levels of particularly bad constituents such as carcinogens.

The bill sets up a regulatory program for the burning and blending of hazardous wastes in fuel, a continuing problem which we just don't know enough about. One of the issues I am deeply interested in and I will be asking particularly those from the States, what do we do about the siting of hazardous waste facilities? What are we going to do in this country to expedite the location of new sites? Everybody agrees we need new sites, nobody wants them anywhere near them. Indeed, it seems to me in many States they are adopting laws which will give a local option prior to the location of a hazardous waste disposal site in that area.

That is all well and good but of course nobody in the local community will permit the location of a hazardous waste site there. So the end result is few if any new sites are being developed. And the current atmosphere of distrust and opposition when siting issues arise may very well lead to a legislative fix to this critical problem. I want to alert those who will be testifying that we will be asking questions as to how to resolve this problem. There is another issue which we discussed in previous hearings which I still do not have a very good understanding of.

That is, Federal facilities. The RCRA law is applied to the Federal facilities but it appears that the law is not being implemented in connection with those Federal facilities.

Considering these and other changes in the bill and those which the subcommittee or the full committee may add, I believe, will greatly strengthen and expand the RCRA law this year. These amendments are high on the full committee's priority list and it is our hope that we could schedule, indeed we have scheduled a subcommittee markup on this legislation for June 23d and 24th and we hope that we can move to a full committee markup rather rapidly after that.

So we look forward to this hearing. I am delighted that the ranking member of this subcommittee, Senator Mitchell, a man who has taken a great interest in all of these problems, and made an outstanding contribution, is here. If you have any statement, Senator, we would be glad to entertain it at this time.

OPENING STATEMENT OF HON. GEORGE J. MITCHELL, U.S. SENATOR FROM THE STATE OF MAINE

Senator **Mitchell**. Thank you, Mr. Chairman and Senator Stafford.

I am pleased to join you here because the issues we will discuss today regarding the Resource Conservation and Recovery Act are of vital importance to the health and well being of every person in this country as hazardous wastes are unfortunately pervasive in our society. Hardly a week goes by without the discovery of some new tragedy caused by some past careless handling or disposing of hazardous substances. These occurrences are the result of careless and sometimes negligent practices of the past, some of which unfortunately continue today.

The Congress has enacted two statutes to deal with hazardous byproducts and wastes produced by our industrial society. First, the Resource Conservation and Recovery Act is intended to create a system of safe management of hazardous wastes. It represents a preventive approach. Second, the Superfund is intended to remedy the contamination created by past unregulated practices which have resulted in about 14,000 abandoned hazardous waste sites in this country. This is a remedial approach.

Aggressive implementation of RCRA is the key to avoidance in the future of the mistakes of the past. According to the Office of Technology Assessment, "Cleaning up a site from which there are hazardous releases and victims might cost 10 to 100 times the additional costs incurred to prevent releases of hazardous materials." In simple words, preventive action is almost always less expensive than remedial action.

There exists a sound regulatory framework in RCRA. But it has been correctly said that laws are only words on paper without the hands and efforts of men. Past implementation of RCRA has not always reflected congressional intent. Regulatory exemptions, lax enforcement, failure to expand the laws coverage of regulated substances are a few of the problems we are here to address today.

You, Mr. Chairman, have identified them in detail.

These issues should concern every American. Without a sound hazardous waste management system human health and the environment will continue to be threatened on a daily basis. I hope, Mr. Chairman, that by our efforts we can contribute to avoiding this result.

Senator **Chafee**. Thank you very much, Senator Mitchell.

We look forward to your, as always, constructive participation in these hearings and of course we are delighted that the chairman of the full committee is here, Senator Stafford. He indicated earlier that he did not have a statement to make but I didn't want this occasion to go by without welcoming you, Senator Stafford. We are so glad that you have taken time from your busy schedule to attend.

Senator **Stafford**. Thank you very much, Mr. Chairman. I would point out only that I am glad you are going ahead rapidly on this matter which is important and we have time available, June 29 and 30, for full committee consideration of this legislation if the subcommittee gets it to us.

Senator **Chafee**. That is fine. I see Senator Randolph, the distinguished ranking member of the full committee is here, and if you have a statement this would be the proper time to insert the same if that is your choice.

OPENING STATEMENT OF HON. JENNINGS RANDOLPH, U.S. SENATOR FROM THE STATE OF WEST VIRGINIA

Senator **Randolph**. If agreeable, I will give a statement at this time. I appreciate, Senator Chafee, your consideration and always the consideration of the chairman of the committee on accommodating members.

We welcome the witnesses. They will share their views on the reauthorization of a very important, I think a monumental act of the Congress, the solid waste disposal measure.

In March, Senator Chafee, I joined you in the introduction of S. 757 looking toward important reforms to the current Solid Waste Disposal Act. It has become evident since we last amended the act, as you will recall that was in 1980, there were strengthening provision that we felt would be needed to further control disposal of the hazardous wastes and to assure that in the legislation our original intent in the Congress is completely carried forward.

The completion of the work on this vital bill is urgent, Mr. Chairman. Action, here on the hill, on the Solid Waste Disposal Act reauthorization can serve, and properly should, as a prelude to consideration of related and pressing initiatives on other fronts. I think there is a critical need for providing compensation and redress to the victims of involuntary exposure to toxic substances, and we have had, in our committee, the issue considered very carefully in connection with the Superfund law.

The final compromise did not include the provision which I mentioned. It remains a priority for action in this committee and on the Hill. It seems to me that we can be assured that the President himself recognizes the problem because he has nominated Lee Thomas as the Assistant Administrator of EPA for Solid Waste and Emergency Response.

I know that Mr. Thomas has ably handled this position. He has been in this capacity as the Acting Assistant Administrator.

I have emphasized the importance of this legislation and of restoring stability within the agency and particularly the solid waste and Superfund programs.

We know Mr. Thomas. He served in an appointed position with the Federal Emergency Management Agency and I hope that we can act quickly on his nomination.

There are some provisions of S. 757 that make prompt enactment important. First is the provision that calls for prohibiting land disposal of certain hazardous wastes which I do not believe belong on the land. This provision represents a step forward in developing the initiatives for disposal of substances that are highly toxic or unstable or otherwise unsuitable for management through the practices of land disposal.

There is a second provision which would close a loophole. I think there was an erroneous creation in the administration interpretation. I don't think it was ever the intent of this committee or the Congress that generators of hazardous wastes in amounts less than 1,000 kilograms per month be exempt from a systematic and responsible method for the disposal of these wastes. The law does not recognize the amount of the waste generated as a criterion in determining the disposal practices. This provision closes that loophole. It would establish a sensible path to the regulation of this category of hazardous waste generators.

And there is a third provision which is highly important. It requires that more dangerous substances be listed and brought under the hazardous waste system of regulatory items. It expands the list of factors that the Administrator should and must consider when evaluating inclusion and delisting. In conclusion, Mr. Chairman, as we think of the fact of delisting of hazardous waste, we must know that additionally the provision calls for placing dioxin and similar poisons on the list as hazardous wastes. That would be done hopefully within a period of 6 months.

I think these are corrective amendments. I think they are needed. I know that you, Mr. Chairman, are knowledgeable, and other members of the committee wish to join with you through your leadership. These hearings are very necessary and again sometimes our schedules keep us from being here but I shall follow very closely this subject matter, the statements of the witnesses, and, of course, the very pointed questions that you and other members will address to our guests.

Thank you.

Senator **Chafee**. Thank you very much, Senator Randolph.

You have long been interested in this area and your contribution and indeed your cosponsorship of this bill shows that constructive participation. So we look forward to your remaining active as I know you will.

Senator Durenberger.

Senator **Durenberger**. I have no statement.

Senator **Chafee**. We welcome you here.

The first witness is Mr. Lee Thomas who is acting as Assistant Administrator for Solid Waste and Emergency Response. Mr. Thomas, I am pleased that the full committee received your nomination from the President for you to be the Assistant Administrator of EPA. So we welcome you. I know the chairman will be scheduling a hearing soon on your nomination.

STATEMENT OF LEE M. THOMAS, ACTING ASSISTANT ADMINISTRATOR FOR SOLID WASTE AND EMERGENCY RESPONSE, ENVIRONMENTAL PROTECTION AGENCY, ACCOMPANIED BY JOHN SKINNER, DIRECTOR, OFFICE OF SOLID WASTE; GENE LUCERO, DIRECTOR, OFFICE OF WASTE PROGRAMS ENFORCEMENT; AND MIKE BROWN, ENFORCEMENT COUNSEL, OFFICE OF LEGAL AND ENFORCEMENT COUNSEL

Mr. **Thomas**. Thank you, Senator.

I have with me today to participate in response to the questions that you may have several members of the staff from EPA. On my left is John Skinner, who is the Director of the Office of Solid Waste; Gene Lucero, on my right, who is Director of the Office of Waste Programs Enforcement—the technical support unit for enforcement—on the far right, Mike Brown, Enforcement Counsel for the Agency in our Office of Legal and Enforcement Counsel.

Senator **Chafee**. Carol Dinkins is here. Why don't you come up and participate here too, if you would.

Ms. **Dinkins**. Thank you, Mr. Chairman.

Senator **Chafee**. Why don't you proceed, Mr. Thomas? Maybe you have some comments on what Senator Danforth said?

Mr. **Thomas**. Yes, sir. I would. Before I begin my opening statement I would like to comment on Senator Danforth's proposal.

I understand the issues that Senator Danforth was addressing. As a matter of fact he and I had some considerable discussions about those particular problems during the Times Beach tragedy and response. I think that those issues as well as some others that are coming out of this whole process of trying to respond to the dioxin problem will definitely merit our close review and attention. I would suggest that our staff work closely with your staff on the committee to take a look at those issues and determine the best way in which they should be addressed. I think there are some possible administrative actions that may remedy some of those issues.

In addition there may be the need for some statutory change. But we would be most appreciative of the opportunity to work with your staff on that.

Senator STAFFORD. Mr. Chairman, I think this would be a good time for me to ask Mr. Thomas in view of his comment and I know that you listened to Senator Danforth's testimony. Do you think he and Senator Eagleton are touching on an area where the Superfund law should be adjusted and is there in your opinion some merit to his proposal?

Mr. THOMAS. I think there is some merit to his proposal. Definitely it should be addresssd. As to whether it would require statutory provision or as to whether administrative action may remedy the issue I think would require more thorough review. I think we would be glad to work with your staff in that regard.

Senator STAFFORD. Thank you very much.

Senator CHAFEE. Thank you.

Why don't you proceed with your statement, Mr. Thomas?

Mr. THOMAS. Senator, I have provided the committee the full statement.

Senator CHAFEE. We will put that in the record. Why don't you excerpt from it as you like.

Mr. THOMAS. Thank you.

As you indicated I am Lee Thomas, I have been Acting Assistant Administrator for Solid Waste Emergency Response for EPA since the latter part of February. What I would like to do today is basically discuss with you the status of implementation of the RCRA program and talk a little bit about some of the legislative initiatives as well as administrative initiatives that you have already mentioned and some of the ones that I would like to mention.

Senator CHAFEE. I think that would be most helpful. It seems to me we are pretty familiar with the program. So I don't think you have to spend an awful lot of time in reviewing it. I think if you could touch on the points that have been raised in the legislation we have submitted, and whether that is necessary in your view, whether it isn't, and what else should be done, we won't spend too much time in reviewing the program in the past.

Mr. THOMAS. I will attempt to do that, Senator.

Basically I think as was pointed out by one of the members in his opening statement we are at a point with the program where we have a basic regulatory framework in place, particularly with the issuance of the land disposal regulations in July 1982, the basic framework for regulation of hazardous waste was put in place. The Agency is placing its current emphasis on trying to deal with several things as far as implementation of the law is concerned.

First, insuring that through monitoring and enforcement compliance facilities that are actually operating today, are adhering to existing requirements. We are also evaluating facilities against permitting requirements and trying to police that as aggressively as possible.

Second, we are trying to move to carry out the provisions of the act as far as the authorization of States is concerned. July 1985 is the date we are working toward for final authorization of the States. By that date States should have full authority to manage the program in a partnership with EPA. So we are placing a great deal of effort in working with the States in this regard.

The third major area is dealing with the basic regulatory framework both to review our existing regulations and also to fill in some of the regulatory gaps. I think in your statements you have already identified some of those gaps. I would like to talk about how we are dealing with them today and how I think they should be addressed both as far as statutory and administrative changes are concerned.

First, in the regulatory area, an area that was mentioned, burning and blending of waste. Clearly I think that is an issue that needs to be addressed and we feel we are beginning to address it. As you pointed out, Senator Chafee, it is a problem that we don't know enough about either as to its extent or how it should be addressed. We are quite concerned about both the burning of hazardous waste in boilers as well as wastes being blended into the conventional fuel and possibly being sold to unknowing users.

We have developed a three-phased approach to deal with the issue. First is through an enforcement effort which we began in January. We are trying to find out the full extent of the problem through inspection of waste oil handlers or processors and we are beginning to develop more information from that. Second, we are developing a proposed standard to limit the levels of hazardous constituents that may be present in waste derived fuels. We are working on that proposed regulation at this point.

Finally, proposed technical standards covering all situations where the burning of hazardous wastes in industrial boilers and furnaces can result in adverse effects. We have completed some emission tests as a basis for developing those technical standards and promulgate those regulations. We are trying to both develop additional information on the problem while developing solutions to the problem at the same time.

A second area where additional regulation is necessary is small quantity generators. As was already mentioned, there is an exemption for most generators of less than 1,000 kilograms of hazardous waste per month. The rationale in 1980 when that exemption was proposed by EPA was that we were moving first to regulate the large quantity generators which it was estimated accounted for 95 to 99 percent of the waste being generated and then within 2 to 5 years to have the information to come back and regulate the additional thousands of generators that would fall into the small quantity generator category.

Basically the approach that we are following is somewhat similar to provisions of the proposed Senate legislation. We will first complete a study that we have initiated, basically consistent with the study outlined in the Senate bill, of small quantity generators to insure that we have a full feel for the number of generators, how much waste is being generated, where that waste is currently being disposed basically, the type of waste that is being generated.

Second, we are reviewing all new listings to determine if a lower small quantity generator exclusion is warranted. For instance, the dioxin listing which we recently proposed was categorized as acutely hazardous waste which means that we would regulate it down to 1 kilogram per month of waste.

Third, we are currently developing a proposed notice requirement which would require that generators of more than 100 kilograms per month basically identify and provide notice that this is hazardous waste, that identification then being available to both transporters as well as operators of disposal facilities for their appropriate use.

And, fourth, an area that I think that is particularly important with whatever the final regulation is, concerns small quantity generators, the development of a broad educational effort directed toward those generators to educate them on the extent of the regulatory program and the actions that they would be required to take to actually comply with those regulations.

A third major area of regulatory effort that we have underway is again consistent, I think, with the basic direction of the Senate bill as well as some of the provisions of the House bill. This is the area of land disposal. I have already mentioned our regulations promulgated in July of 1982, which we feel were both comprehensive as well as stringent as far as land disposal is concerned. They include detailed design and operational standards, standards for ground water monitoring and corrective requirements if ground water contamination is detected. They prohibit the land disposal of reactive waste, ignitable waste, and incompatible waste.

We are currently considering and have underway some regulatory changes related to land disposal. First, the restriction of the disposal of bulk liquids in landfills. Additionally liner requirements for existing facilities as far as lateral expansion is concerned. Air emission standards, location, and siting standards, revisions of liner standards. We intend to review the wastes that are highly mobile toxic and persistent and have a high tendency to bioaccumulate for possible prohibition from land disposal.

The specific actions and the general direction of activity that we have underway I think are all very consistent with the kind of provisions that are in the Senate bill. I do want to express some concerns about some provisions of the House bill, H.R. 3867 which I think we should be, that we are concerned about.

The deadlines for restricting the land disposal of hazardous wastes we feel are unrealistic. The issues relating to which wastes should be banned, the availability of alternate technology to deal with those wastes I am finding every day are very complex issues, extremely technical in nature. The regulatory process itself is one that I think takes extensive periods of time for full comment and consideration of all issues involved.

So I am concerned about deadlines which I think may force decisions to be made prematurely before adequate technical review is possible in an area where technical knowledge is being gained every day. And in addition to that I think that the automatic prohibition that is included in the House bill is one that causes me quite a bit of concern; that is, if we don't meet deadlines then automatically certain things go into effect by law. The automatic prohibition of wastes from land disposal gives me some concern in that I feel that by statute we are getting far ahead in that particular case of our technical knowledge and our scientific knowledge, particularly as it relates to the environmental impact of that kind of automatic prohibition.

Prohibiting land disposal may cause less environmentally sound practices to be used because of a lack of new available technology as far as alternatives are concerned.

I would hope that the Senate would consider in its bill a more moderate approach—an approach of working with the administration, allowing the Agency the opportunity to complete the kind of technical review that I think is required to arrive at sound regulation in this area.

The final area of regulatory review that we have underway is in the area of listing and delisting, another area that you have addressed by your bill. I have already given the dioxin example as one that was initiated shortly after I came to the Agency in March. We have several others underway currently. These would be listings of new wastes that would be categorized as hazardous wastes.

Additionally we are reviewing our procedures for delisting. As you understand, delisting is a specific request for the delisting of a specific waste at a specific site. We basically receive a petition. We go through a full technical review of that petition to determine whether that waste at that site should be delisted because of the procedure that is in place at that site.

There has been concern about the method that we have used as far as delisting is concerned. We are considering a revision to that rule which I think is consistent with the provisions that have been incorporated into proposed statutory changes on the House and Senate side which would consider constituents in addition to those for which the waste was listed in deciding whether to delist a particular waste.

So as far as regulatory review is concerned those four major areas all of which I think are areas that you are addressing fairly consistently with the way we are addressing them and are areas where we have action underway.

Let me mention then the next major category which is the permitting program. Permitting of hazardous waste management facilities is, I believe, one of EPA's most important responsibilities. I think as you mentioned, Senator Mitchell, clearly the work we do today in prevention will pay off tomorrow, not only in terms of dollars but in terms of human suffering. Permitting of hazardous waste management facilities we are finding is an extremely technical, emotional process, probably far more so than was anticipated when that process was envisioned in the original statutory provisions as well as administrative provisions.

As we have gotten beyond storage and treatment permit provisions and reviews and gotten into incineration and land disposal permit reviews, we find that it requires a long period of time for thorough review. It is estimated that in our land disposal permit review an average review time may be 18 months. We are learning every day because we are in the process of reviewing those permits. Additionally we are trying to insure that community issues are fully addressed.

Senator Chafeee, as you pointed out those issues in local communities and States are very difficult issues to deal with. We want to give the public a full opportunity to participate as we permit facilities and that takes time.

In that regard, I have reservations about unrealistic deadlines, being incorporated into the statute for permitting. I feel that we have to concentrate on both accomplishing the permitting process as quickly as possible and insuring that we have a quality permit review process before those facilities are fully permitted. So quality versus quantity I think is something that we have to be aware of. We have to concentrate on.

A next major area, one that I touched on briefly initially is the State authorization process. We are in continuous communication through our regional offices with States. Basically the statute sets up a partnership program between the Federal Government and State government in the operation and management of hazardous wastes. We have been working closely with the States over the last number of years to move toward that final authorization period when sites would be finally authorized to basically manage the program with oversight and assistance from EPA.

At this time 37 States have received an interim authorization to manage portions of the hazardous waste program and we are working hard through technical assistance, training, and a final authorization guidance manual that is in the field to assist States in accomplishing our goal and their goal which is to be finally authorized in all States by January 1985.

However, one of the things I am concerned about is that if, in fact, we don't meet that date in an individual State it is our responsibility at EPA to insure that the hazardous waste program is properly managed in that State. So I have asked my staff, the regional staffs to develop a specific strategy not only a strategy of how to get a State authorized by the deadline but a strategy of how to operate the program by EPA if a State doesn't meet that deadline.

So we are working aggressively to insure that all States are authorized and if some are not to insure that the program is properly administered in those States.

Finally, I would like to touch on civil and criminal enforcement. We do have an active program of enforcement, one that I have been paying close attention to. Inspections are a major part of it. I know some of the provisions that have been considered in the Senate and in the House are mandatory inspections of the facilities. We currently inspect all major facilities each year and we inspect minor facilities on a sampling basis. Last year for instance we conducted with the States primarily the States by the way, 14,000 inspections of the facilities. This year we are projecting 17,000 inspections. Those inspections are a critical part of our compliance program.

Additionally, we use those enforcement efforts as a very important part of our regulatory development and compliance program. As I have indicated in burning and blending of hazardous waste, we use enforcement to insure compliance as well as the development of information on what problems exist, what the full extent of the problem is. Ground water monitoring, and other interim status requirements at facilities are major issues we are concerned with from the compliance standpoint.

Enforcement is a major part of our strategy in permitting. We are using our enforcement authorities to try to insure that quality permit applications are submitted on a timely basis.

As we develop and as we move to a final authorization stage with the States I think we will see EPA's role as far as enforcement is concerned shift from more direct enforcement and inspection to more of an oversighting joint inspection program. I think that shift is one that we have got to closely coordinate with the States and fully define and one that we currently are reviewing and thinking and working on with the States.

In my prepared statement you will see some specific suggestions for some statutory clarification on language in the civil enforcement area. We would be pleased to communicate with your staff as far as those clarifications are concerned. Similarly, over in the criminal enforcement side we have moved particularly in the last year I think to develop a capability within the Agency to mount a more effective criminal enforcement program. We currently have 23 investigators in field offices, criminal investigators that are actively working on at this time 95 active investigations that relate to hazard waste. Additionally in the criminal enforcement side there are several areas where we think some clarification in the language and in the statute would be helpful.

So in conclusion I would say that we feel there is a basic framework, a basic program in place. However as you and as you have stated know, much remains to be done as far as the hazardous waste management program is concerned in this country that is authorized by RCRA. Further, regulatory control and review is necessary in the areas I have indicated and possibly other areas. Strong compliance and enforcement program is mandatory and one that we feel we are building.

The permitting program is one that is particularly important right now, one that is extremely resource intensive, one that requires close communication with State, local officials and public input and finally the State authorization program and clearly defining the roles of EPA and the States once States are authorized we think is a particularly important component of the program for the future.

So in conclusion, Mr. Chairman, this is basically where we are, where we feel we are going as far as the hazardous waste management program is concerned. We welcome the opportunity to work with you, members of the committee and we have enjoyed the opportunity to work with your staff over the last number of months as they have worked on this statutory revision.

Senator CHAFEE. Thank you very much, Mr. Thomas.

When we do mark up on the 23d and 24th, I would like you to be here or if you are unable to be here somebody who can speak for you and your people because it may be that we won't disagree with you but if we are marking something up in that legislation, we certainly want to know what the position of the administration is on it.

Ms. Dinkins, why don't you proceed with your statement?

STATEMENT OF CAROL DINKINS, ASSISTANT ATTORNEY GENERAL, LAND AND NATURAL RESOURCES DIVISION, DEPARTMENT OF JUSTICE

Ms. DINKINS. Thank you, Mr. Chairman.

I appreciate the opportunity to testify today on both the Senate and House versions.

As you know, environmental enforcement, particularly in the hazardous waste area, is the highest priority in the Land Division and with the Agency as well. We have been very productive in enforcement litigation over the last year in both the civil and the criminal area. Particularly in the criminal area, we have seen good success.

The number of cases already actively under investigation and consideration by grand juries this year exceeds the total number for last year. More cases involving more defendants have been successfully prosecuted than ever before and the number of cases referred to the Department by the Agency has nearly doubled over the output of last year.

The number of cases under investigation at EPA has risen to 154, which is nearly double the number during all of last fiscal year. Approximately 65 percent of the current cases in the criminal area involves hazardous or toxic wastes. Civil hazardous waste enforcement has also met with impressive success during the last year.

In recent months, the pace of filings, negotiations and trial preparation has accelerated. We have recently added substantial staff in this area and we are confident that working with Administrator Ruckleshaus and the new staff at EPA the coming months and years will increase the results achieved through vigorous enforcement.

Generally, I will focus my comments today on the provisions of the bill which bear directly on our enforcement responsiblities.

First the Senate bill. Only section 11 of S. 757 relates directly to the work of the Lands Division. This section is a complete substitute for the existing section 7006 of the act.

Section 11 of the bill would allow petitions for review of regulations to be heard in the D.C. circuit or in any other circuit in which the petitioner resides or transacts business. We commend this amendment which is consistent with the administration's commitment to making the regulated public's access to the courts more convenient.

The one difficulty we see with section 11 arises out of the change in section 7006(b).

In the Department's view, this revision will unnecessarily broaden venue selection and will invite forum shopping. The change is not conducive to more localized participation in the governmental process nor would it meet any genuine need of a petitioner for convenience of forum.

We believe the existing language of this portion of section 7000(b), which allows filing of a petition related to a permit decision only in the circuit of residence or in which the facility which is the subject of the permit is located should remain unchanged.

Turning now to the House bill, H.R. 2867 proposes in section 11 a number of significant changes in the conduct of civil litigation under the act. Though we support portions of section 11, some portions are in my view unnecessary or would seriously interfere with the effective criminal and civil enforcement.

The act when considered jointly with other environmental statutes, especially the Superfund statute, already provides the Federal Government with the tools it needs to effectively protect public health and the environment.

Senator **Chafee**. Could I ask you to go back?

You like the language on having the forum, the choice of the forum but you want it restricted to that in which the petitioner resides and leave out the transacts business part?

Is that it?

Ms. **Dinkins**. Yes, that is correct. We like the way it is written now. If you put it with the portion that would call for only transaction of business, if it is a large company that does business in many places around the country, then they could go to whatever forum they chose.

Senator **Chafee**. Thank you.

Ms. **Dinkins**. The most troubling portion of the House version is section D, which concerns litigation authority. The bill's position of rigid statutory deadlines on the initiation of litigation by the Department is unwarranted, arbitrary and could result in significant interference with the effective conduct of both civil and criminal litigation under the act.

It is not sought by nor is it supported by the administration, the Department or the EPA. It should not become law. Administrator Ruckleshaus testified at his confirmation hearing that he believes strongly that litigation authority should be centralized at the Department of Justice, that "for purposes of orderly administration of justice, there has to be some place where you lodge that final authority."

I agree with his statement. The Attorney General's role in providing neutral dispassionate analysis of and advice concerning controversial issues cannot be overstated.

This role has historically proved to be of great value to the fair vigorous enforcement of the Nation's laws. Only unitary litigation authority can ensure that consistent——

Senator **Chafee**. Ms. Dinkins, our legislation doesn't deal with that. That is the House. We have got your position. I don't think you will find this committee very enthusiastic for the House provisions.

So why don't you skip that?

Ms. **Dinkins**. All right.

Certainly, with that statement, I would be delighted to.

Would you like me to move to the citizen's supervision of the House version?

Senator **Chafee**. You just move to the next part.

What page are you on now?

Ms. **Dinkins**. Page 17.

Senator **Chafee**. We picked up a lot of pages.

Ms. **Dinkins**. I had a lot to say on this subject.

Thank you.

Senator CHAFEE. Let's go to 17.

Ms. DINKINS. The Department is also opposed to section 11(f) of H.R. 2867 to expand the citizens suit provision to allow any person or State to initiate an action equivalent to the suits that are now initiated by the United States under section 7003.

We see several problems in this flawed amendment.

First of all, I think that it is counterproductive to the ends which the act generally seeks to achieve and that it will hamper Federal enforcement without offering comparable benefits.

One inevitable result of this provision would be to encourage additional Federal court litigation. Since no need for such additional litigation has been demonstrated, the result will be an increased burden on the Federal judicial system; and it will hamper enforcment efforts by the Government.

RCRA already contains significant citizen's suit provisions parallel to those in other environmental statutes. Section 7003 provides special and critically important authority to the Federal Government to seek relief in situations presenting an eminent and substantial endangerment.

The focus of this provision has not been yet fully established and is being fashioned upon very broad and general statutory language. It is extremely important because the Department of Justice with its governmentwide enforcement perspective can choose cases and fashion litigation strategy which will insure the best possible judicial construction of 7003.

The Government also has technical and scientific resources to develop these cases. It is important to recognize that citizens now have available recourse to State courts and in those situations where State remedies or otber statutory remedies are inadequate, the Federal Government can act.

Individual citizens and civic organizations which must, should, or wish to become involved in the litigation or settlement process now can be included through mandatory or permissive joinder or intervention pursuant to rules 19(a), 20(a) and 24 of the Federal Rules of Civil Procedure or through the public comment process provided for at 28 CFR 50.7 which precedes the entry of all remedial consent decrees.

The potential for use by States or citizens will have an effect on the willingness of defendants to enter into settlements with the United States and could disrupt or delay implementation of remedies.

Several problems are also presented by the addition of a loosely worded citizens suit provision. It would occasion the use of the provision as a vehicle for airing of actions brought mainly through the recovery of damages on claims in the Federal courts which are already severely tested by a growing caseload, the use of the Federal courts as an alternative to State courts by States and citizens, and by the possibility that citizens whose primary interest is damage recovery will not vigorously assert the more difficult injunction claims at trial—thereby inviting adverse or confusing judgments which could harm Federal enforcement efforts.

Another important area in the House version is section 11(c) which attempts to preserve all statutory and common law claims of citizens regardless of the comprehensive nature of RCRA and CERCLA.

The rationale for this change is that some rights which might otherwise be lost by reason of the Supreme Court's opinion in Milwaukee II. When existing remedies are available through State common law and when RCRA, CERCLA, and other Federal laws are examined in the light of the Supreme Court's opinion, it is not clear whether there is remaining viable Federal common law to be reserved.

It is that uncertainty which causes us concern about this provision.

As the Supreme Court has stated in both Erie Railroad and Milwaukee II, there is no general Federal common law and with the narrow exceptions, the Constitution directs courts to look to State law or to Federal statutes to discern legal standards.

The Attorney General has said on several occasions that leaving to the Federal courts rather than to the elected branches of Government the authority without any statutory guidance to write substantive rules of behavior and liability is not only a misallocation of responsibility under our constitutional system, but also encourages litigation and leads to both uncertainty and unpredictability in important areas of the law.

Most importantly, when Congress relies on a nebulous Federal common law to enforce the law, we will have less confidence about what tools are truly available to us.

In sum, while it is one thing for Congress to make clear that State law and Federal statutory rights are preserved, we feel strongly that any reliance on Federal common law to fill statutory gaps would be misplaced.

If the drafters had certain desirable Federal common law rules in mind, it would be preferable to write these rules directly into the statute.

If the statute is inadequate in any area, we urge Congress to act swiftly and effectively to aid the prosecution of hazardous waste cases.

I think that the uncertainty caused by the reliance on an indeterminant body of Federal common law is undesirable. Whatever the substantive rules are and no matter how tough they are, those rules should not be initiated by the Federal courts. Rather in our system of separated powers, it is the wiser course that at the outset they be studied, debated and written by the legislative and executive branches.

In the area of section 7003 clarification, which is in section 11(a) of the House version, it is good to note that two courts have rendered slightly varying rejections of the application of section 7003 to abandoned or closed sites. We believe that the clarifications in section 7003 are helpful. We need to clarify Congress original intent, but we would like those changes carefully drafted and explained to make clear that they are simply clarifications of what is already provided under existing law.

Mr. Chairman, the remainder of our comments about both the House and the Senate version are in my prepared testimony.

I would be glad to provide any answers if you have questions.

Thank you.

Senator CHAFEE. Thank you, very much, Ms. Dinkins. We appreciate your testimony.

Mr. Thomas, I would like your comments on the siting of hazardous waste facilities and what we are going to do to overcome that opposition. You stated that there are their numerous sites and I am not sure whether those sites are on the land owned by the generator itself.

I am speaking of sites that are available to other generators. It has been my experience in looking in the area I come from that we are making zero progress in opening sites.

Has that been your experience and if so, what are we going to do about it?

Mr. THOMAS. It is definitely an issue, Senator, and I think one that you have properly articulated. It is one that we all are making some progress on, I find, through the permitting process.

In other words, we have called in a large number of land disposal permits. We are in the process of that review. We have completed the review of a very small number of those permits but we are finding that industry is responding and proposes to construct both new facilities as well as permit modifying some existing facilities.

I think that the kind of facilities we are going to find, the kind of land disposal facilities we are going to find are unlike the kind of land disposal facilities that are basically out there now in the future.

I think both in response to our standards and anticipating new standards, we are going to find far more complex technically sophisticated disposal facilities that will include technology, not just land disposal.

Senator CHAFEE. I don't argue that. But I am saying that is all possible. But no one will permit one; will allow one. By no one, I mean the communities. I believe I am correct in saying there isn't one in New England. There isn't a single one in New England. Everybody is for it, but we in Rhode Island would like to see them in Maine.

Maine wants to see them in Vermont, I suppose.

Senator STAFFORD. Or New Hampshire.

Senator CHAFEE. There is nobody from New Hampshire here today?

But the end result is everybody is for someplace else and as a result none get built.

Do you agree with that? Is that a common problem throughout the country?

Mr. THOMAS. It is a major problem.

Senator CHAFEE. I think we are whistling in the dark to think that is going to be overcome by goodwill in the community. I think the more the publicity comes out about the dangers of hazardous waste sites, the more resistance there is.

What do you think about a provision in this law or in the Superfund law that would make the payments under the Superfund more contingent upon the States developing and licensing a fully permitted site, meeting all the qualifications and requirements of RCRA?

Mr. THOMAS. I would have reservations about that on two sides.

One, the impact it would have on Superfund and our ability to move out quickly and clean up facilities. Currently in the statute on Superfund, there is a requirement for the States to provide a site. That doesn't mean that they have to provide a site in the States. They have to identify a site for disposal of those wastes, being able to accomplish that.

Largely it has been by off-site disposal and largely in off-site facilities, other facilities out of State. So I have some reservations about the impact on our ability to move out on cleaning up the Superfund.

On the other side, we already have a provision in our final authorization regulations relating to States not being able to ban wastes generated outside their States. In other words, the provision you were talking about, local or State options and we will not have facilities in our State.

We have a provision there that deals with the part of it.

Senator **Chafee**. You have it where?

Mr. **Thomas**. In the regulations relating to final authorization for States.

Senator **Chafee**. Final authorization under which legislation?

Mr. **Thomas**. Under RCRA. The final authorization of States, the January 1985 deadline I was talking about. But let me mention one other point; that is, that I think the requirement for every State——

Senator **Chafee**. Maybe not every State. Every State has access near by or there would be some kind of common pact or something.

Mr. **Thomas**. We probably may find, that is what I was going to make a point, if we got something like that, I think we would be talking largely regional.

It would depend on areas of the country, because of geology, other reasons it may be inappropriate to cite in certain other, certainly the volume is different in different parts of the country.

I think what we are finding is larger facilities, sophisticated with the broad range of technology and a regional kind of approach is probably what is going to happen.

Senator **Chafee**. My time is up. I think you are overly optimistic. I think we have got to do something. I cannot see any progress being made at least in the area that I come from. Maybe others are finding a different experience.

Senator Stafford, do you have any questions? We are going to have another round of questions.

Senator **Stafford**. Mr. Thomas, how difficult is it to find a site that is acceptable for the storage of hazardous waste?

Mr. **Thomas**. Let me let John Skinner, who is director of our Office of Solid Waste and deals with that permitting process give you some of the specifics that we have to go through.

Senator **Stafford**. I am interested in the geological or geographic problems, not political ones.

Mr. **Skinner**. Most of the opposition to hazardous waste facilities seems to be directed toward land disposal facilities, facilities that dispose of waste on the land, although there is opposition to other types of facilities as well.

It is just very, very strong. And to be honest, many parts of the country are not suitable for the land disposal of certain types of wastes without stream controls.

I think that your concern about siting the new facilities should be thought of in light of the provisions of your legislation that deals with the prohibition of wastes placed on the land and it is a very interesting experience in California recently where there was a new treatment facility sited and accepted mainly because that was tied into provide adequate capacity for the California prohibition.

So I think that both technically and socially, there is a stronger preference for treatment alternatives. I think there is some hope for siting of those alternatives.

Senator **Stafford**. What sort of a geological formation are you looking for for hazardous waste sites anywhere?

Does it have to be a clay over rock?

Mr. **Thomas**. For land disposal, you want very tight clays, good separation from ground water and you also, then, want to apply the best available technology in terms of the liners and leachate collection systems as well.

Senator **Stafford**. If hazardous waste is packaged in drums, are there drums available or other packaging available which will offer an extended period of time to contain a hazardous waste?

Mr. **Thomas**. Do you mean in a land disposal setting?

Senator **Stafford**. Yes.

Mr. **Thomas**. No. The drums will eventually corrode.

Senator **Stafford**. Whatever they are made of?

Mr. **Thomas**. Whatever they are made of. That is one of the reasons why we prohibit the placement of liquid in drums in the land fills because the liquid will eventually leak out.

Senator **Stafford**. Just one question for you, Mr. Thomas.

As I listened to your testimony and your criticism of various aspects of the House bill, do you have, in your written testimony, any specific recommendations for any changes in the Senate bill that is in front of this committee?

Mr. **Thomas**. There are some more specific comments in that written testimony with reference to particularly over the final enforcement sections. There were five different specific recommendations relating to language change.

Senator **Stafford**. Thank you. Thank you, Mr. Chairman.

Senator **Chafee**. Thank you, Senator Stafford.

Senator Mitchell?

Senator **Mitchell**. Thank you, Mr. Chairman.

Mr. Thomas, at page 6 of your statement, you said we believe that it is sound public policy to discourage land disposal of wastes which are harmful to public health and the environment and may not be safely contained in the long term because of the uncertainty of care and oversight in the long run.

Six months ago, your predecessor, Ms. Lavelle said, we believe that most wastes can be satisfactorily managed in the land, that it can be done with a reasonable margin of safety or more cheaply in this manner.

Is it fair for us to conclude that the policy of the EPA in this area has undergone significant change?

Mr. **Thomas.** I think it would be fair to conclude that.

Senator **Chafee.** I would say the leadership of the Agency has undergone a significant change, too; changes, change in plural, changes.

Sorry to interrupt you.

Senator **Mitchell.** Thank you, Mr. Thomas.

That is very encouraging, I must say.

In 1977, the governing council of the United Nations Environmental Program urged member governments "to take steps to insure that potentially harmful chemicals which are unacceptable for domestic purposes are not permitted to be exported without the knowledge and consent of the appropriate authorities in the importing country."

Are you aware that this resolution was supported by the United States?

Mr. **Thomas.** I am not familiar with that.

Senator **Mitchell.** Take my word for it. I now ask you whether you know whether or not regulations established pursuant to RCRA currently require receiving country consent prior to the shipment of hazardous wastes?

Mr. **Thomas.** I do not know that.

John?

Mr. **Skinner.** No. They don't require prior country's acceptance.

Senator **Mitchell.** That is right. They do not. If not, why not?

Mr. **Skinner.** The current regulations as set out require notification of the receiving country. We felt that notification of that country would provide them with the opportunity to stop a shipment of wastes into the country if they chose to do so.

Senator **Mitchell.** The language of the United Nations resolution explicitly says knowledge and consent. That means informed consent. You are aware that many of the countries to which wastes are exported don't have environmental protection agencies like we do or the knowledge and expertise.

Mr. Thomas, I would urge you to look into this and to develop meaningful regulations consistent with the spirit and intention of the United Nations resolution which is plainly not now being complied with by the United States.

Mr. **Thomas.** I will look into the issue.

Senator **Mitchell.** I thank you for that.

Ms. Dinkins, I have a series of questions to you regarding your testimony on citizen suits. Let me say at the outset so you will be aware that I strongly disagree with the position that you expressed in your testimony.

I would like to first take the question, you dealt directly with citizen suits under section 7003, I would like to first deal with the problem of statutory right of intervention.

As you are aware, there is now conflicting precedent in the courts as to whether or not there exists a statutory right of intervention by citizens in imminent hazard cases brought by the Government under section 7003.

Do you favor or oppose a clarifying amendment to this legislation that would make it unmistakably clear that such a right exists?

Ms. **Dinkins**. I believe that in the area it is at the permission of the court and it is the judicial area that can determine whether it is appropriate for citizens to intervene.

We favor that situation.

Senator **Mitchell**. What, letting the courts decide?

Ms. **Dinkins**. Yes.

Senator **Mitchell**. Even though you know that some courts have ruled that there is such a right and others have ruled there is not such a right?

Ms. **Dinkins**. Yes.

Senator **Mitchell**. In other parts of your testimony, you suggest that we should make clarifying amendments where there is some area of ambiguity.

What is wrong with doing it here?

Ms. **Dinkins**. Because I believe that the basic proposition that the courts can make that determination in a given case, given the interests of the particular citizen or group, given the facts of the situation, given all the circumstances.

Senator **Mitchell**. That is not the question. The question is not whether on the substantive merits of a particular case a specific party has the right to intervene.

The question is whether there should be a statutory right of intervention for such parties.

You are aware, are you not, that a statutory right of intervention is not in any concept of environmental law. It is explicitly conferred by this very act for cases brought to enforce permitting and regulations. It exists under the Toxic Substances Control Act, the Clean Air Act, Clean Water Act, and Safe Drinking Water Act.

Do you oppose the statutory right of intervention in those laws?

Ms. **Dinkins**. The only thing that I was trying to say is that the current situation whereby the courts are the ones who determine whether or not to allow or permit the intervention in the cases, I believe, is the appropriate way to have the law.

Senator **Mitchell**. In other words, you are opposed to the statutory right of intervention?

Ms. **Dinkins**. Yes.

Senator **Mitchell**. Which doesn't leave it to the courts, which gives the individual the statutory right to intervene.

You are opposed to it?

Ms. **Dinkins**. In the RCRA situation, correct.

Senator **Mitchell**. Are you opposed to it under RCRA for cases involving permitting and regulations?

In other words, you want us to repeal that aspect of the current law?

Ms. **Dinkins**. No, sir.

Senator **Mitchell**. Why are you for it in some cases but not in others?

Ms. **Dinkins**. As I explained in my testimony, we are looking at the particular area of injunctive relief under section 7003. It is my firm belief that the citizens have the ability to go into the State courts and these are generally local problems and are best addressed by the local courts under State law. They are not generally anything but intrastate issues.

I think that since the citizens have that ability under State law, and the Federal courts are already overburdened, that is the appropriate place for them to pursue those actions.

Senator MITCHELL. Is there a State court in the United States that is not more of a burden than the Federal courts?

That is the fact, Ms. Dinkins. It is true that the Federal courts are overburdened but it is absolutely untrue to imply that State courts are less overburdened and, therefore, more capable of dealing with the problem. They are far more burdened than other Federal courts, far more everywhere in the country. You see the problem is this: You are saying that a citizen ought to have a statutory right to intervene when you are dealing with permits and regulations but not when you are dealing with the potential of an imminent hazard. It seems to me that you have the priorities wrong.

If a citizen ought to have a right to intervene, it ought to be when there is an imminent hazard, people in the community who may be exposed to the hazard. That is a far more serious situation than is a permitting or regulation problem in which no imminent hazard exists, no problem may exist and you are dealing with it in the future.

Is my time up?

Senator CHAFEE. We will come back. I have additional questions and the others might have some, too.

Senator Durenberger?

Senator DURENBERGER. Mr. Chairman, I have one question I would like to address to Lee.

The House RCRA amendments prohibit injection into or above an aquifer and below an aquifer only where it can be shown that the aquifer would not be impacted in some way.

In your opinion, are there any circumstances in which hazardous wastes should be injected into or above a drinking water aquifer?

Mr. THOMAS. No

Senator DURENBERGER. Thank you.

Senator CHAFEE. That is a record.

Senator DURENBERGER. I tried to speed this up, Mr. Chairman.

Senator CHAFEE. Mr. Thomas, in the House bill, there is a provision that the EPA investigators will have the authority to carry guns, make arrests, execute warrants.

What is your view on that?

Mr. THOMAS. Mr. Chairman, in addition to my response, I think the enforcement counsel for the Agency who has the responsibility for criminal investigation probably should respond as well.

The Agency does have that issue under review and discussion in the Department of Justice. Personally, I am in favor of that, largely based on the prior experience I had. I feel that it would be a substantial benefit for our investigators to have that authority as far as their criminal investigation capability.

Mr. Brown would probably want to respond.

Mr. BROWN. As Mr. Thomas said, we have not had the opportunity to discuss this with Mr. Ruckelshaus. However, virtually everyone you speak with is unaminous on the need for specialized criminal investigative unit to deal with hazardous waste crimes because of their highly technical nature.

I believe, personally, that we need this authority because of three reasons.

First, the type of people with whom you deal in criminal investigations are people in which there is some element of willfulness and knowledge involved. Other reports both from the press and the Congress have linked organized crime and other people of this ilk to the midnight dumping practices.

So you are not dealing with a type of person that is what you might call your normal corporate white collar criminal. You are dealing with people who actually carry weapons and who go about this in the still of the night.

Second, the type of duties that these investigators are called upon to perform are traditional law enforcement duties. They are surveillance, execution of criminal warrants, things of this manner.

They are the same kind of law enforcement duties that other agencies with full law enforcement powers are called upon to perform.

Finally, I have to rely very heavily upon the opinions of the agents who have been in the field since the end of September doing this work. We are very proud out of over 300 applicants to have of the 23 people on the ground no less than 5, with as many as 22 years of experience, of people using the type of law enforcement powers we are seeking for them today. They come from such diverse backgrounds as the Federal Bureau of Investigation, Bureau of Alcohol, Tobacco and Firearms, drug enforcement agency, even D.C.'s homicide division.

These people have all had this power in the past. They have been on the ground. It is their opinion they need this kind of power to fully function as adequate investigators in the field today.

Senator **Chafee**. I am interested in those thoughts. We will be talking with you further, particularly after you have had a chance to discuss this with Mr. Ruckelshaus. I personally think there are too many people wandering around in America with pistols, but maybe they are needed.

I would like to address this question to you, Mr. Thomas, and to Ms. Dinkins; that is, the point I raised in my opening statement regarding RCRA relations applying to Federal facilities.

Do they? Do you impose the same regulations on Federal facilities as you do elsewhere?

Mr. Thomas?

Mr. **Thomas**. Yes. Federal facilities, we got into a little bit the last time as far as the Superfund is concerned. I think it is definitely an issue, as I indicated to you I was going to look into, I began to look into it.

I met with the Department of Defense and others to deal with the Federal facilities issue. I continue to intend to look into it.

What I am trying to do as far as RCRA is concerned is fully define Federal facilities that we have, that need to be regulated, their status as far as compliance is concerned and make sure that we are dealing with them the same as we are other facilities and that we are providing States that are authorized to deal with them the assistance to do the same thing.

Senator **Chafee**. You are saying Federal facilities have to get RCRA permits to operate?

Mr. THOMAS. We are in the process of calling in permits from facilities.

Senator CHAFEE. Do you agree with that, Ms. Dinkins?

Ms. DINKINS. Yes.

Senator CHAFEE. Have you had experience in this?

Ms. DINKINS. Yes. You addressed, first of all, the question of the regulatory program and how it affects Federal facilities. That, of course, is Mr. Thomas' responsibility.

When we are engaged in litigation, certainly we confer closely with any other Federal agencies that are involved in a particular site. We don't believe, however, that—and it is a policy of the administration as it has been in prior administrations—one agency of the Federal Government that operates under the direction of the President can sue in the courthouse another such agency. But the EPA has worked very closely as has the Department with facilities that may be involved in the sites to make sure that they are involved in the cleanup as well.

Senator CHAFEE. Have you received cooperation from the other Federal agencies? I suppose Defense is the largest?

Mr. THOMAS. They are. I have since I have been with EPA received cooperation from the Department of Defense in their efforts and my efforts to make sure that we have got good communication and coordination underway.

We had a full review with them 2 weeks ago of their Superfund program. All branches of the service were there as well as all of my key staff members. We went through the status of their whole effort as far as all of their sites are concerned; discussed the interface, identified about four or five issues that needed further discussion.

I had a lengthy communication with their point man as a matter of fact, in the last several days concerning the status of RCRA pursuing the same kind of interchange on RCRA that we had on the Superfund.

I am in the process of setting up a meeting with the Assistant Secretary of Defense in this area, myself and other officials in EPA to make sure we have got a good working relationship with the Department of Defense because they are the prime area Federal agency.

There are other agencies involved and I intend to deal with them also.

Senator CHAFEE. Thank you.

Senator Stafford?

Senator STAFFORD. Thank you, Mr. Chairman.

I have one more question that occurred to me in light of Ms. Dinkins' testimony and that has to do with this sticky case of Milwaukee.

Senator CHAFEE. I think that will take the balance of your time.

Senator STAFFORD. As you may know, the committee has had hearings with respect to the impact of the Milwaukee case. In one of them we had the attorney for Milwaukee as one of the witnesses in front of the committee. He stated in his view that in cases of interstate pollution, the only law which applies is the Federal law and the only Federal law was this statute.

This would mean if he is correct that since RCRA contains no provision for compensating the victims and the same is true of all of our other environmental laws that they would have no recourse for injuries, no Federal common law or State common law even if the permit were being violated or did not cover the activity in question.

Is it your position that all nonstatutory law, State and Federal should be supplanted for preempting?

Ms. **Dinkins**. No, Mr. Chairman. We have never suggested that State common law should be preempted or that it should be written into the statute. In fact, we have much belief that that is the first line of the citizens rights in the courthouse.

Senator **Stafford**. Thank you.

Thank you, Mr. Chairman.

Senator **Chafee**. Senator Mitchell?

Senator **Mitchell**. Mr. Thomas, let me just return to the first subject or the second subject regarding exporting of wastes. I asked you to look into it.

Would you, please, tell me what you think is a reasonble time for you to make such inquiry as you feel appropriate and report back on your assessment as to whether or not we are in fact complying with the resolution which we support and, if so, why, and if not, what changes you propose?

Mr. **Thomas**. It is hard for me to say without fully understanding the scope of the issue. It will require that I do some not only coordination within my own office and review but obviously within our Office of International Affairs.

I would think that I would be able to do that, get back to you within the next several weeks.

Senator **Mitchell**. If you could do that, let me have a report in writing.

Ms. Dinkins, I would like to pursue further the subject which we began to discuss. We distinguished between the statutory right of intervention which you were previously discussing and now the citizen's rights to initiate suits. Directly under section 7003, we are dealing here with the situation in which by very definition an imminent hazard is alleged to exist.

I would like to ask you and Mr. Thomas, it has been alleged that there are about 14,000 hazardous waste sites in the country.

Do you have any estimate of in how many of those there might be a situation involving an imminent and substantial danger?

Ms. **Dinkins**. That would be a question properly addressed to Mr. Thomas.

Mr. **Thomas**. I don't think we do that information at all. We are in the process of currently trying to identify all of those type sites as well as assess the situation at each site, assess it as far as just what the waste is, the extent of the problem, the possible extent of future remedy.

In that assessment process, I think we will begin to get the kind of information that you are seeking which is the imminent hazard information it would require.

In the frame of 14,000 sites, it will require a good bit more time.

Senator MITCHELL. Are you able to make an estimate of the number if we limit the question to approximately 400 sites on Superfund priorities?

Mr. THOMAS. I have currently gotten underway an effort that is probably going to provide fairly accurate information in that regard. I have asked our regional offices to review all of the sites on a national priority list which is currently 419 to determine whether there are any that have an imminent hazard that would qualify for removal action, removal action basically addressing the situation that you indicated.

Bearing in mind that some of those sites we already have taken action, what I have found within the last several days is there may be as many as a fourth of those sites that would qualify for such action.

Senator MITCHELL. Ms. Dinkins, do you presently have the resources to take action in excess of 100 such sites?

Ms. DINKINS. Senator, we are continually working with EPA to make sure that we are on top of what they expect to be their anticipated referrals for litigation. We have brought on board 39 new people for Superfund, generally hazardous waste litigation, and we have 42 positions authorized. The others will be filled shortly. We continually assess it.

Senator MITCHELL. Are those lawyers?

Ms. DINKINS. They are not all lawyers. About 30 of them are lawyers.

Senator MITCHELL. Of the total?

Ms. DINKINS. Yes.

Senator MITCHELL. The rest are clerks and support personnel?

Ms. DINKINS. Yes. If we see, based on EPA's projections for a given fiscal year that there will be a case load heavier than we believe we can handle with our existing resources, then we will look at adding resources.

Senator MITCHELL. You testified, Ms. Dinkins, that you believe that the right of citizens to bring suit would hamper Federal enforcement activity in section 7003. Such a right exists with respect to other environmental laws.

Can you identify for me specific instances in which citizens suits have hampered Federal enforcement activity in the environmental laws?

Ms. DINKINS. Senator, we have not nornally and would not generally object to citizens to intervene in the 7003 actions. What we have talked about in our testimony in terms of citizens initiating these types of suits, let me go back again to say that they can handle this particular problem if they have one in their area, one that they are concerned about through the State courts and the State laws.

What we are looking at is preserving this particular special area of relief by the Federal Government which is for an injunctive action in the Federal courts against particular sites.

I believe that we are not looking at a situation where the citizens are left without remedies or whether they are left without any opportunity to address a problem. I don't believe that any other statute allows the citizens to bring an imminent hazard suit. We are talking about a very specialize area.

Senator MITCHELL. Not imminent hazard, but enforcement suit in all due respect, I don't think you have answered my question.

You testified here this morning that you are opposed to providing rights to citizens to bring suits under section 7003.

One of the reasons you gave this opposition is that it would hamper Federal environmental enforcement activity. That right exists with respect to other environmental laws, including the aspects of RCRA.

My question is, What specific evidence do you have that the right in other areas has hampered Federal enforcement activity?

What is the basis for your statement that it would hamper Federal enforcement activity?

Ms. DINKINS. I appreciate your restating the question.

What I am looking at is the fact that the other statutes that you are referring to and other areas under RCRA are statutes that are not imminent hazard provisions.

What you are looking at is the opportunity to enforce a particular permit condition or something of that nature which is more specific.

What we have under 7003 is very broad statutory language and the Government right now and over the last several years has been working to expand or to make sure that as broad an interpretation as possible and application of that particular statute obtains as we can get in the Federal court system. And the concern that I expressed in the testimony is that in this particular area, where we are still exploring the extent of the law, given the broad statutory language that we have here, and the fact that it is not like what you see in any other environmental statute, is that if we have citizen suits under 7003, the citizens don't have the technical and scientific resources the Government has they don't have the ability to pick and choose cases around the country for prosecution and appeal if it appears that you can develop a law in a particular case with particularly good facts in the way that the Government has the ability to pick and choose and to push it.

Senator MITCHELL. What about the cases in those communities where it doesn't fit into your overall strategy of picking and choosing cases and they are presented an imminent hazard.

That is precisely the problem which the provision seeks to meet.

Isn't it fair for me to conclude that you are unable to cite even one instance in which such a provision has, with respect to previous environmental laws, hampered Federal enforcement activity even though the right has existed for many years and your act is speculative in nature here?

Ms. DINKINS. Senator, my objection goes to the fact that there is not another statute with the provision like this provision. That is why I cannot cite you one.

There are no others. The citizens are not left without remedy. I go back to where I started, which is that they can have remedy in the State court under State law. These are localized problems that should be addressed in that forum.

Senator MITCHELL. But you have just said on the one hand that you need a strategy to deal with it, and in arguing why you have to have local, you have to pick and choose cases to develop that precedent, now you say it is a localized problem that has to be dealt with locally.

I just think you are unfortunately resisting what I think has proven to be a benefit and enhancement of the enforcement of the environmental laws and for no reason.

There is no substantive reason that you presented here today and surely no substantive evidence to support your conclusion and all of the evidence in the past that I have become aware of and if there is contrary information, I would welcome receiving it from you or anybody else that we ought to give the citizens the right to have a say when they are presented with an imminent hazard.

What is wrong with letting the people most affected by a potential imminent hazard have some say in the proceedings that will determine what happens to them?

It seems to me the argument is overwhelming.

Senator CHAFEE. Mr. Thomas, there is a petition here that came from concerned citizens of Adamstown, Md. What is the status of your response to that? Are you familiar with this?

Mr. THOMAS. That is the one that relates to the smelting and refining.

Senator CHAFEE. Aluminum liners.

Mr. THOMAS. We currently have that petition under review. It gets to the heart of an overall issue in the Agency that relates to mining wastes and the inclusion of smelting and refining processes as a part of that exclusion. Our General Counsel's Office is reviewing that petition at this point in time and that issue.

Senator CHAFEE. What was the last part of your statement?

Mr. THOMAS. The Office of General Counsel in the Agency is currently in the process of review of that petition as we review the issue.

Senator CHAFEE. If you can get the answer out of those folks as soon as you can.

Second there is a statement, I am told, in the Post today that some 50 hazardous waste disposal sites have shut down rather than comply with the new RCRA requirements. Is that accurate?

Mr. THOMAS. I think that statement refers to the ground water monitoring issue. John, you might want to respond specifically to that.

Mr. SKINNER. Yes. Last July we published our new ground water monitoring and corrective action requirements which went into effect this January and between July and January approximately 50 facilities ceases receiving wastes and in doing that they are not required to comply with the requirements.

Senator CHAFEE. See if I understand this. If the facility closed prior to January 26 of this year, then it is not subject to the regulations that hold the owners and operators responsible. Is that correct?

Mr. SKINNER. It is only not subject to one aspect of those regulations.

Senator CHAFEE. Is that the monitoring?

Mr. SKINNER. No. They have to continue to monitor, they have to close their facility in accordance with the closure requirements. If the ground water becomes contaminated, they are not subject to the same cleanup requirement of that ground water as facilities that operate after January.

Senator **Chafee**. Does not that let them off the hook?

Mr. **Skinner**. It lets them off the hook on that particular requirement. Yes.

Senator **Chafee**. Why did you have that?

Mr. **Thomas**. Basically it is similar to other regulatory promulgation, that was a 6-month notification included in it.

Senator **Chafee**. Fine. We have some other questions. We will submit them for the record. [See p. 74.]

Senator Mitchell?

Senator **Mitchell**. Yes, I have some further questions but I will submit them in writing.

Senator **Chafee**. Fine.

For you, Mr. Thomas, your folks and Ms. Dinkins, if you could respond to those questions that we have we would appreciate it. Thank you gentlemen and Ms. Dinkins.

The next panel is Mr. Stoddard, Mr. Mobley, Mr. Kreutzen, Mr. Mossholder, and Mr. Early.

Mr. Stoddard, why don't you proceed? You have submitted a statement, Mr. Stoddard.

Gentlemen, each of you have rather lengthy statements. As always we seem to be short on time. I would appreciate it if you would summarize your statements and we will put each of them in the record. Why don't you proceed? We thank you all for coming. I know some of you have come a good distance. We are grateful to you for doing that.

STATEMENT OF KENT STODDARD, DIRECTOR, TOXIC WASTE ASSESSMENT PROGRAM, OFFICE OF APPROPRIATE TECHNOLOGY, STATE OF CALIFORNIA

Mr. **Stoddard**. My name is Kent Stoddard. For 2½ years I directed California's program to phase out the land disposal of highly toxic waste and to encourage the construction of new treatment of wastes.

I would like to correct for the record that I am a former director of the Office of Appropriate Technology. That office has since been abolished.

I appreciate the opportunity to testify and I will try to summarize my written statement as best I can.

I would like to start by sharing a couple of relevant facts about California that I think help illustrate the severity of our toxic waste problem and also explain our interest in why we proceeded with some rather landmark restrictions on land disposal.

About half of our drinking water comes from ground-water sources, much of our irrigation supply comes also from underground aquifers. Yet recently we found that over 200 wells in 15 counties are contaminated with toxic substances. We found that two-thirds of our 67 Superfund sites have either already contaminated ground water or are likely to do so. We found that 70 percent of our 1,700 surface impoundments that handle hazardous wastes—of those 70 percent—have a higher probability of contaminating the ground water beneath the sites.

We have also discovered 106 separate organic contaminants in California's ground water, yet California and the Nation as a whole has drinking water standards for only 6 organic contaminants. Operators of our public water systems are not even required to routinely monitor for the most toxic, the most common organic contaminants that we are finding in our ground-water supplies—substances like tricloroethylene, and benzene, which are highly toxic and we know are leaking from hazardous waste surface impoundments, landfills, land farms, virtually every type of hazardous waste facility.

We are clearly on the verge of a crisis today. We in California are not equipped to handle it. I think that is true in most other States. If we detect serious ground water contamination from only 30 percent of our surface impoundments—30 percent of those 70 that have a high probability of contamination—we will end up with a State Superfund list that will be longer than the national priorities list. We will have over 400 sites that we will need to clean up.

Needless to say our State government, our industries cannot afford the billions of dollars it will take to clean up 400 dump sites in California. Fortunately we put into place a program that I think has great potential to help prevent the continued contamination of our land and of our water. It is a program that I believe should not be restricted only to California. It is a workable, it is a commonsense approach that should be the centerpiece of our national waste management strategy. In my testimony today I will try to summarize the approach that California has taken to restrict land disposal.

I will summarize a major study we did about 1½ years ago, and talk about the effect that our program has had on California's business and industrial community.

Back in 1981 California completed the first major study on land disposal and alternative technologies. It is one of the most comprehensive studies that have been attempted by any of the States. We looked at all the wastes that were put into our landfills, we tried to figure out what kinds of quantities, what types of wastes we were dealing with, and tried to figure out which of those wastes represented the greatest risk to human health and environment. We also looked at about 100 alternative technologies for recycling and treatment consideration.

We put out a final report, about 20,000 copies have been distributed all over the country. The report was written by the Office of Appropriate Technology but with the help of an advisory committee which included 17 members, most of whom were from industry, waste generators, waste disposal companies. We also had representatives from the environmental groups, the University of California, private consultants, and the EPA.

Senator **Chafee**. We have your statement. So I think you should get right to the heart.

Mr. **Stoddard**. I would like to start with the findings of that report which I think have major significance. First we found that 40 percent of all the wastes that were going into California's land disposal facilities were highly toxic and highly persistent. They did not degrade for long periods of time. Our conclusion was that under no circumstances should those waste materials go to the land facilities. Second, we found it was technologically feasible to recycle, treat, or destroy 75 percent of all the hazardous wastes which were disposed of at our landfills.

We found that the additional cost of recycling, treating, or incinerating the highly toxic waste materials would have minimal effect on the California industries and that the additional cost was justified given the risks those wastes represented when placed in the land.

Finally, we discovered that new waste management capacity, the capacity that California would need to recycle, treat, and destroy most of our wastes, that could be developed in less than 2 years.

I included in my statement a list of organizations, companies, public interest groups that now support restrictions on land disposal. It includes Dow Chemical, Western Oil & Gas, Chemical Waste Management, California Medical Association. It is an extensive list. It seems that restrictions on land disposal are as widely supported and as accepted as apple pie with perhaps the one exception of Ms. LaVelle. The question now becomes how do we take this consensus of opinion on land disposal and put it into a program that allows us to stop putting these poisonous wastes in the ground.

We made several recommendations in 1981, recommendations that we are currently implementing with some success. First, we recommended that our regulatory agencies should prohibit the land disposal of highly toxic wastes. Second, that the State should establish higher fees on land disposal of all hazardous waste, particularly those that are extremely hazardous. Third, we recommended that States should encourage alternative technologies both by streamlining the permitting process as well as providing some financial incentives for new investments in safer waste treatment technologies.

Six months ago we developed and formally adopted regulations which ban land disposal in five categories, cyanides, toxic metals, strong acids, PCB's, halogenated organic compounds. These are almost identical to the categories our advisory group recommended 1½ years ago. They are also the categories of waste that nearly everyone agrees should not be deposited in a land disposal facility. They are the wastes that represent the greatest risk to our health and the environment.

The California list as adopted has been incorporated into the House version—the latest version of the House bill that was authorized in November. I believe there are enormous benefits to be derived from the incorporation of this list in the Senate legislation as well. Our list is based on sound, widely accepted criteria. It has already been subjected to rigorous public and industry review. It could be in place at least 1 full year before any new Federal regulations could possibly be developed.

Although California's list is not the definitive list—it should not be viewed as the definitive list of waste that should be prohibited from land disposal—it represents the most sensible and the most expeditious way to immediately begin to curtail what we put in land disposal facilities.

There has been a lot of emphasis on California's list and incorporating that into the House version of the RIRA legislation. I think it is also important that we recognize that California's program is a lot more than just a list. It is unlikely that we can just mandate that hazardous wastes no longer be placed in the land without some other implementing strategies to make that a reality. I wanted to point out a few key aspects of our program that I think need to be considered.

First, our regulations ban only the land disposal of highly toxic wastes, not all wastes. We believe that there are hazardous wastes that can be safely deposited in landfills, particularly some of the high volume wastes that come out of the petroleum industry—drilling muds, brines, and a lot of the oily wastes.

Second, our regulations provide for a phaseout over a 2-year period, starting this month. In June we banned cyanide wastes; next January we will ban toxic metal wastes, strong acids and PCB's; on January 1, 1985 we will ban liquid wastes containing halogenated organics; and finally on July 1, 1985, we will ban sludges and solids containing halogenated organic compounds.

The phaseout was intended to provide just enough time for the alternative technologies to come on line. It was never our intent to ban the land disposal of hazardous wastes if there was no available alternative. Our regulations require that we make a recommendation 60 days before each of these restrictions take effect certifying that capacity is available for the treatment, recycling, or incineration of the waste to be banned.

Finally, the key feature of our regulations is the variance procedure.

Senator CHAFEE. I read that. That is in the record. I am really interested in this testimony, this is excellent. How did you encourage further waste treatment facilities? It seems to me that is the alternate waste treatment facility. That is the guts of the matter, I believe.

Mr. STODDARD. It is the guts of the matter. The first thing, is that the regulations themselves correct a major market deficiency. Right now treatment facilities cannot compete with the cheap landfills. Unless we take the cheap landfill option away we won't have alternatives. The regulations do that.

Second, I think that a lot of what we have seen in the problems of siting and permitting facilities relate more to landfills than they do to better forms of treatment and recycling. We've permitted facilities, even brand new facilities, that didn't exist prior to the time we started this program. The other thing we have seen is virtually all landfills in California have the potential to become comprehensive facilities, ones that treat, recycle, and possibly even incinerate hazardous wastes, not just dispose of those wastes in the land.

That does not require the siting of a new facility. It requires a new permit, yet we are talking about processes that will minimize the current dangers that the site represents. I find that in most cases that is far more publicly acceptable to have a landfill start to get into the business of treatment, recycling and even in some cases incineration than to have that same facility continue to dump highly toxic waste materials into the landfill.

Senator CHAFEE. We will have more questions for you when the others finish.

Mr. Mobley.

STATEMENT OF JOHN MOBLEY, PRESIDENT, MOBLEY INDUSTRIES, AUSTIN, TEX.

Mr. **Mobley**. Mr. Chairman, members of the committee, my name is John Mobley. I am president of Mobley Industries, headquartered in Austin, Tex. We operate a new hazardous waste injection well which is built to the current UTC standards. I am appearing before you today to present my personal views on several land disposal issues raised in the RCRA Reauthorization Act.

These views also represent those of the Institute of Chemical Waste Management which is the official institute of NSWMA whose statement on the entire bill you will get tomorrow. The Institute is composed of firms like mine which operate hazardous waste treatment and disposal facilities permitted under RCRA.

Senator **Chafee**. Mr. Mobley, you have a 15-page statement here. It will not be possible to read it all. We are going to put it all in the record. Why don't you get to the point you particularly want to stress?

Mr. **Mobley**. I had planned to do that, Mr. Chairman.

First, let me summarize if I could in one statement my objective, that is, to request that you consider for all purposes in this legislation and future legislation that class I deep wells are accepted technology, not as a subpart under land disposal. We think there are distinct differences. The track record is distinctly different. It is there to be examined.

We welcome your examination of our safety record in the past and our present practices and that you consider these distinctions as you make this legislation.

Senator **Chafee**. Thank you.

Mr. **Mobley**. I will go right to the heart of the matter. If you would like to follow, I think we can get started on page 8. I will leave it to others to talk about the merits of surface or near surface disposal. I run a deep well and deep well injection is, in fact, one of the most successful disposal technologies that we have used, proven over 40 years of operation. It is a regional technology. It is appropriate only where the appropriate geological conditions exist. It involves disposal of solutions that are probably, as a minimum, 99 percent liquid.

The materials are placed deep into the ground, often a mile or more below the surface. It is safe technology and it should be encouraged. The conditions governing the operations of deep wells and landfills are as different as the technologies themselves. While liquids would be absolutely minimized in landfill disposal, operators of deep wells must, just as conscientiously, assure that their wastes are virtually entirely solids free because solids will plug the well and do irreparable harm.

Similarly, restrictions on all types of wastes which can be safely landfilled bear no resemblance to those wastes which can be safely deep welled. These separate technologies both deserve stringent regulation but using separate regulations recognizing their fundamental differences. Presently there are 114 deep wells which inject liquid hazardous wastes, and most of these facilities are in Texas and Louisiana. I might add here, Mr. Chairman, that in your State, Rhode Island, it would not be possible as I understand it to site a deep well because the geological conditions simply are not there. The same would be true of Mr. Mitchell's State, and Mr. Stafford's State. Only about a dozen of these 114 wells are commercial facilities. The remainder serves only one generator. The 114 facilities are presently managing 3½ billion gallons of hazardous wastes per year. By contrast, so you can appreciate the magnitude of deep wells, incinerators, according to EPA, handled 172 million gallons in 1981. It is important to remember that these 114 wells that inject hazardous wastes are a very, very small part of the total number of active injection wells in the country.

In my State of Texas alone there are 65,000 injection wells, many of which have operated for several generations and which have compiled an excellent record of environmental safety. Most of these 65,000, as a matter of fact, all but some 100 or so, are used for the disposal of oil field brines. If there has ever been a case when Murphy's law was set aside, it is in the record compiled by injection well disposal. There have been many, many opportunities for something to go wrong over the last 40 or 50 years. It almost never does.

As with any technology there are isolated problems caused by misapplication. I think this is the case with the U.S. Army Rocky Mountain Arsenal in Colorado. But all evidence suggests that injection of liquid hazardous wastes is sound technology. None of the Superfund sites, to my knowledge, were injection wells. Nowhere in the professional literature are injection wells identified as problem technology. We should be very careful not to carelessly lump deep wells into the same category as landfills when we are talking about restricting land disposal on specified hazardous wastes.

Denial of injection well alternatives would deprive the Nation of 11 percent of its present capacity and for no good reason. Please don't throw the deep well baby out with the landfill bath water. Such a change would require solidification and land disposal of 3½ billion gallons now being injected and would require significant increases in the landfill capacity at a time when as you so appropriately noted the permitting of new facilities is vitually at a standstill.

In my opinion, it would increase improper disposal rather than decrease it to take such a step. Perhaps some of you are familiar with injection well technology. There has been some confusion between class I and class IV wells. Some RCRA authorized bills would ban disposal in class IV wells and we support that ban. Class IV wells are those which eject wastes above the drinking water aquifer. Disposal of hazardous wastes in these facilities would be irresponsible and should be stopped. None of our members operate such class IV facilities. What members of our industry do operate are class I wells. Regulated under RCRA and UIC, deep well injection is used most frequently to dispose of large quantities of aqueous wastes, including waste waters of acids, alkalis, and organic brines. Frequently it is seen as the most practical environmentally safe and economical method for disposal of inorganic salt solutions or for wastes of high concentrations of hydrocarbons.

Senator CHAFEE. Your time is up. I read through the balance of your statement. Is there anything else you particularly want to stress? I get your thrust. You don't operate class IV wells.

Mr. MOBLEY. No, sir.

Senator CHAFEE. Just class I?

Mr. MOBLEY. Yes.

Senator CHAFEE. What you are saying is there is a distinction between what you are doing and what might fall under the banning of landfill as in California. I suppose under California's definition you couldn't have your wells even though your wells might not be suitable to them. What do you say to that, Mr. Stoddard?

Mr. STODDARD. Mr. Chairman, we include underground injection as a land disposal technology. However, we provide categorical exemptions for many of the types of wastes they are concerned about. There are many different kinds of highly toxic waste materials that are inappropriate for deep wells and every other form of land disposal; but that doesn't mean deep wells are out, they could be continued to be used for other hazardous, high volume materials.

Senator CHAFEE. Mr. Mobley, you agree with that, don't you?

Mr. MOBLEY. No. I do not. I believe every waste material should be evaluated for appropriate technology, but the list from California bans from deep well disposal the very waste which we consider to be prime candidates from the standpoint of safety.

Senator CHAFEE. Thank you.

Mr. MOBLEY. A couple of other things I would like to mention, Mr. Chairman, if I could have just a minute. One is the fact that we agree with the EPA's representatives who stated that the provision that is currently in the House version of RCRA reauthorization is not good. We don't think the EPA can appropriately examine in 12 months all of the wastes that have got to be evaluated.

We would ask that you not deny us the right of review and comment. A couple of other things, I would ask that you examine the portion of my testimony which deals with the deep well construction and the appropriate geology that is necessary. If you look at us individually, we think we will come out OK. It is just when we get lumped in together tarred with the same brush that you might be using on landfills.

Senator CHAFEE. Thank you very much, Mr. Mobley.

Mr. Kreutzen?

STATEMENT OF RICHARD W. KREUTZEN, GENERAL MANAGER, ENVIRONMENTAL AFFAIRS, CHEVRON, USA

Mr. KREUTZEN. Yes, Senator Chafee, my name is Dick Kreutzen, general manager of environmental affairs for Chevron, USA, which is the domestic operating arm of Standard Oil of California. I am representing API today, where I chair the ground water and waste management committee of that institute. We have submitted a more detailed written statement which covers a variety of issues beyond land disposal. I would like assurance that will be accepted as part of the record.

Senator CHAFEE. All of your statements will be in the record.

Mr. KREUTZEN. Regarding land disposal the institute and its members have basically two concerns. While S. 757 takes a more reasonable approach, the other legislation we are seeing, H. R. 2867 in the House, S. 1363 in the Senate, amount to an effective ban on land disposal.

Our second issue that we have is that, as Mr. Mobley is asking for separate, distinct treatment for deep well injection, we would like to see the same treatment afforded to land farming or land treatment. We agree the land disposal should be minimized. However, as I said earlier, we are concerned that the approach taken in the House and in other Senate bills is excessive and in fact not feasible.

I had the pleasure in March of participating in a European study trip that consisted of members of the environmental community, as well as local and State officials from the State of California. My personal observation is that even in those States most often quoted as having modern waste systems, such as in Germany and Denmark, landfill does play a prominent role and it complements other forms of technology, mainly incineration and resource recovery or chemical treatment.

H.R. 2867 and the other bills that I referred to earlier place unrealistic demands on EPA. Our concern is that the automatic prohibition, taking away from EPA their nondetermination option, would basically trigger land disposal ban on appropriately landfilled wastes. The bills would overload, if not incapacitate the Agency, and sweep land treatment into the ban and in addition allowing inadequate time to develop other technologies, to site them, to permit them, and to build them.

In the case of land treatment, I would like to spend a few minutes talking about what that technology is. It has other names, land cultivation, land farming. It is not an agricultural technique. It is a technology used by more than half of the U.S. refineries. It has been used since the 1950's. It is also used in many European refineries. Currently our estimate is that it handles over one-half of the refineries' wastes. It is used also by other segments of the petroleum industry, production, pipeline, marketing, it is employed by the waste water treatment industry and the food processors and probably others.

It involves the application of oily wastes, for example, tank bottoms, separator sludge, oily dirt, bio sludges, on the soil surface and mixing into the soil layer. It uses naturally occurring oxygen and naturally occuring microorganisms to biodegrade the hydrocarbons. It immobilizes heavy metals that may be present by chemical and physical interaction with the soil. It is a heavy regulated form of treatment.

It is a permitted activity. It is monitored to a greater extent than are landfills. We have to take regular soil cores, we measure any leaching that may occur and we are required to place ground water monitors both upgradient and downgradient in the soil.

Our fear is that land treatment will be a victim of this EPA overload. If some of the provisions in the House and other versions of the legislation are passed, and EPA failed to make any number of determinations, then land treatment could be swept into the land disposal ban. Land treatment is not an on-again-off-again proposition where today we can, tomorrow we can't, nor is frankly any management of any of the high volume waste streams of our industry and others. Consequently we would urge this committee and the Congress to give EPA the kind of discretion that I heard Lee Thomas refer to earlier, not to heap unreasonable and unfeasable statutory requirements and time limits on them, to allow EPA the nondetermination option where at all possible and to provide statutory recognition to land treatment to avoid unrealistic and environmentally unjustified automatic bans on that technology.

Senator **CHAFEE.** Mr. Stoddard, would your California rule permit what Mr. Kreutzen is suggesting?

Mr. **STODDARD.** Again, land farming is considered a land disposal technology for many of the wastes that they are dealing with at Chevron.

Senator **CHAFEE.** I don't understand the difference between land farming and land filling.

Mr. **STODDARD.** In the case of land farming, they are spreading hazardous waste materials over a large area of land in a very thin layer and generally disking it in to get natural degradation.

Mr. **KREUTZEN.** At the outset, we would not propose nor apply the kind of waste they are addressing in California on a land farm. We are talking about oily wastes and biological sludges, and not wastes that aren't compatible with that technology.

Senator **CHAFEE.** That must require considerable acreage, doesn't it?

Mr. **KREUTZEN.** For a typical refinery maybe it could be as small as 1 or 2 acres. We have them up to 13, 14 acres.

Mr. **STODDARD.** One important aspect that is often overlooked is the air emissions from these types of operations where we are dealing with large quantities of organic material. If the waste is very volatile and evaporates very easily, it is a source of major air pollution problems in some cases.

Mr. **KREUTZEN.** In the case of California, we are in the process of negotiating with the ARB to determine what form of regulation is appropriate. I think that is a separate issue.

Senator **CHAFEE.** Mr. Mossholder?

STATEMENT OF NELSON MOSSHOLDER, TECHNICAL DIRECTOR, STABLEX CORP.

Mr. **MOSSHOLDER.** Thank you, Mr. Chairman.

Mr. Chairman and members of the committee, my name is Nelson Mossholder. I am the technical director of the Stablex Corp., a member company of the Hazardous Waste Treatment Council.

The Treatment Council is a national association of firms which employ a wide variety of high technology treatment methods in the management of hazardous wastes. Stablex Corp. specializes in the fixation of metal-containing hazardous wastes from a variety of industrial processes.

I appreciate the opportunity to testify before this committee, and am accompanied this morning by Mr. Richard Fortuna, executive director of the Treatment Council.

The council believes that hazardous wastes should be properly managed in the first instance through the use of any one of several treatment technologies, including: Recycling, reclamation, neutralization, fixation, chemical and biological treatment, and incineration or other forms of thermal treatment; and that treatment technologies should all be required to meet stringent minimum levels of public health protection.

In addition, the treatment of hazardous wastes itself should be minimized through recycling, process modifications, and other techniques which actually reduce the volume of hazardous waste generated each year (appendix I).

While the Treatment Council recognizes a role for land disposal of hazardous wastes under certain conditions, it is clearly the management practice of last resort. Land disposal can be allowed as recommended by the Office of Technology Assessment, for certain wastes: Residuals from treatment processes; wastes that have been chemically fixed to render them nonhazardous; pretreated or stabilized wastes that have been detoxified and delisted; and wastes that are not amenable to any present form of treatment.

The Treatment Council would like to focus its comments this morning on two issues of particular importance in the reauthorization of the Resource Conservation and Recovery Act. The need for land disposal prohibitions, and the regulatory exemption for facilities that burn, blend, and distribute hazardous wastes and waste mixtures ostensibly for the purpose of energy recovery.

Above all else in this reauthorization, the members of the Hazardous Waste Treatment Council believe that the legislation before this committee must establish a conscious national policy that prohibits the land disposal of certain hazardous wastes, and thereby creates the conditions in which hazardous wastes will be permanently transformed or destroyed, and the public health protected from the inherent uncertainty and unreliability of continued reliance on land disposal of these wastes.

Unless such a national policy is instituted——

Senator **Chafee**. You have a lengthy statement. You have got to step up the pace or we won't get out of here on time.

Choose what you want to stress. This is a good statement.

Mr. **Mossholder**. One of the points I particularly wanted to make is coming up right now—little if any prospect exists for ending the all-too-familiar cycle of waste generation, land disposal, and the creation of yet additional Superfund sites, which already exist in each of the 50 States.

I think this bill will, in effect, result in a policy change. I personally would like to see the bill explicitly state that national policy will be to land dispose only as a last resort; that we should minimize the production of hazardous wastes, we should recycle them, destroy them, treat those wastes which must be generated whereever possible, and only land dispose as a last resort.

The problems with land disposal are very well known and my statement covers them in some detail. I would only like to mention one which has not been mentioned by anyone today, and which we think is significant. I am on page 4. When a present day landfill, which has been finally permitted, closes and stays closed for only 5 years without incident, all liability transfers to the postclosure liability trust fund and, in turn, the taxpayers in the event that the trust fund cannot cover the costs of liability claims against it and other such facilities.

We need a national policy because the regulations do not cover all situations, and, even where restrictions have been put into place, they have been easily circumvented. I refer to the present ban on the land disposal of containerized liquid hazardous waste. This ban, which was intended to prohibit the disposal of drums containing liquid hazardous wastes, has done little more than prompt disposers to add large amounts of sawdust or kitty litter to their wastes prior to landfilling, rather than removing these wastes to treatment facilities. The net effect has been to raise landfill cost for these readily treatable wastes by $5 per barrel.

Even where practitioners of treatment have been able to price their services competitively, they have frequently been undercut by land disposal facilities that were able to reduce their prices substantially--in one instance by 70 percent.

The members of the Hazardous Waste Treatment Council believe that this relative "free ride" for land disposal must come to an end. Not simply for the sake of treatment, but for the reason that with treatment you have certainty—certainty in knowing what was done to the waste, and certainty in knowing that the waste will not surface for future generations to cope with. With land disposal, you are forced to live with uncertainty far into the future, if not forever.

We believe that this Nation deserves a better fate than it has experienced. Our members and other practitioners of treatment are prepared with both the techniques and capacity to do so. In fact, a recent EPA contractor reported significant unused capacity in our industry. Our own members reported a range of 30 to 50 percent unused capacity in 1982.

The Congress at this moment has a unique opportunity to make a clear and rationale break with past policies and to correct the deficiencies that have caused and will continue to create land disposal site problems. Given the approaches that have been taken in the past, and the repetition of events that simply continue inadequate controls on land disposal, there are very few new options left to try.

The Treatment Council believes that the time has come, for a national policy which prohibits the land disposal of certain hazardous wastes that, regardless of physical state, cannot be contained by landfills or other land disposal facilities. The Council urges this committee to take this additional step in the consideration of S. 757. Specifically, untreated metal-finishing wastes, halogenated solvents and pesticides, high acid wastes, and PCB-containing wastes should be prohibited from landfills. These substances are the archtypical ground water contaminants at the Nation's Superfund sites, and are among the substances that could not be contained even by dual-lined landfill facilities as the Princeton study revealed.

Senator **Chafee**. I am interested in the statement. I asked you to summarize. You are reading it word for word. Where does the summary come?

Mr. **Mossholder**. It comes in leaving out all of pages 8 and 9.

Senator **Chafee**. We are still on page 6. I know there are a lot of gems of wisdom in here but you don't have to roll each one out individually. Please summarize or I will have to cut you off.

You are taking more time than the others. I am interested in the subject. I know you are interested in the subject.

Mr. **Mossholder**. The point is well taken. We are also in favor of what Mr. Thomas this morning referred to as the hammer provision but we believe that the presumption must be in favor of prohibiting wastes unless the Agency can make a determination to the contrary.

Senator **Chafee**. I assume you people feel you are prepared to handle all of this?

Mr. **Mossholder**. Yes, we are. Certainly not tomorrow, but over the period of time in which the bans are being posed we feel we are capable of handling it.

Senator **Chafee**. It seems to me you go beyond what Mr. Stoddard said. Mr. Stoddard, don't you think he is going beyond what you are suggesting or what your experience was in California?

Mr. **Stoddard**. It is a different approach.

Senator **Chafee**. Why is it different? It is your approach but more of it, isn't it?

Mr. **Stoddard**. Ours is one where we put heavy emphasis on available capacity and I think his approach is ban it and the capacity will somehow come.

Mr. **Kreutzen**. That is not quite right. We are saying this is a good first step. The timing is in the review.

Senator **Chafee**. The House has it in a year after enactment. That is a pretty tough timeframe.

Mr. **Mossholder**. We can debate the timeframe. The important point is we should establish the policy and then debate the timeframe, come to a reasonable agreement on what the timeframe should be and then implement it.

Senator **Chafee**. Mr. Stoddard says that there are certain things that landfills can take, whereas you are just banning them all.

Mr. **Mossholder**. No. We are not banning them all. We are saying it should be the disposal method of last resort. There are types of wastes—we mention these in the testimony—that can only be land disposed.

There will always be those sorts of wastes. But what we say is that any waste that is capable of being destroyed or treated should be destroyed or treated prior to placing it on the land.

Senator **Chafee**. I will give you 2 more minutes.

You can use it any way you want.

Mr. **Mossholder**. I have just about finished, as a matter of fact.

The last point I would like to make is that in establishing a national policy, it is in the national interest to establish a consistent policy that reflects our desire to prevent a repitition of past practices and insures consistency from one State to the next.

While the Treatment Council applauds the actions of the State of California and others that are embarking upon a similar course, the only way to prevent the creation of "waste havens" and the shifting of hazardous wastes to the area of least control is to insure that such approaches are reflected in national policy as well.

Not only is the public provided with a consistent level of public health protection, but in addition, those who generate, treat and dispose of hazardous wastes will also have a consistent set of regulatory requirements and expectations in this regard. It is our sincere hope that the committee will give every consideration to this approach in its deliberations on this most important provision.

In conclusion, Mr. Chairman, it is clear to the members of the Treatment Council that our Nation's hazardous waste problems will not end with the enactment of this legislation no matter how protective of public health it attempts to be. There will always be people who will not obey the law or will try to beat the system in one way or another.

After all, hazardous wastes are like water running down hill; they will invariably be disposed of along the path of least resistance. Furthermore, additional Superfund sites are being created despite all attempts at prevention simply due to the backlog of uninspected, substandard facilities. The real impact of the legislation before this committee will be to insure that the law and the regulations themselves do not provide cover and official sanction to practices that are clearly in need of proper controls and in turn will create future "Superfund" sites that threaten the health and well-being of this Nation.

This, we believe, should be the primary objective of this endeavor. If undertaken, we believe that it will lead to increased treatment and proper ultimate disposition of hazardous wastes that heretofore had merely been land disposed without precaution.

I appreciate this opportunity to appear before this committee on behalf of the Hazardous Waste Treatment Council. We will be submitting to the committee our views on several other important provisions in the near future, and look forward to working with you, Mr. Chairman, and the members of the committee during your consideration of S. 757.

Senator **Chafee**. Thank you.

I think the point you made and I want to raise that with Mr. Stoddard, is when you put these very high charges on, as you are proposing, you practically put a ban on landfill, you, thus, encourage midnight dumpers.

It is $30 a ton you are going to in California?

Mr. **Stoddard**. $30 a ton tax on top of the normal fee.

Senator **Chafee**. In addition to the normal fee which is what?

Mr. **Stoddard**. $40 a ton for bulk liquids.

Senator **Chafee**. So you are practically doubling it and the question is, are you going to open up more Superfund sites by people just taking their chances and dumping it somewhere? You ponder the answer to that.

We will go ahead with Mr. Early.

STATEMENT OF A. BLAKEMAN EARLY, WASHINGTON REPRESENTATIVE, SIERRA CLUB

Mr. **Early**. Thank you, Mr. Chairman.

I really appreciate the opportunity to testify this morning.

I am going to trim my testimony considerably by starting out on page 5.

We believe that the data provided in my testimony and certainly by the testimony of the other witnesses on this panel provide a strong basis for concluding that the land disposal of hazardous wastes, particularly, highly toxic and persistent wastes should be the management option of last resort.

Alternatives to the land disposal of many wastes are available and the current Federal regulatory scheme encourages rather than discourages the land disposal of hazardous wastes.

Senator **Chafee**. Why? How?

Mr. **Early**. Because the EPA regulations in our view are still applicable and land disposal continues to be a less expensive option than either source reduction or treatment of wastes.

Senator **Chafee**. I think several witnesses have agreed that we have got to make the cost of the land disposal so expensive that they will go to alternate sources of disposal.

Mr. **Early**. That is correct. More particularly, I think we would probably place more emphasis on the source reduction aspect.

Senator **Chafee**. Not creating so much.

Mr. **Early**. Not creating hazardous waste, precisely. Look at process changes, looking at substitutions of materials so that the waste isn't hazardous to begin with.

Senator **Chafee**. That might come about as a result of the higher cost of disposal. That might be insensitive.

Mr. **Early**. That in combination with the fact that in some cases you can also institute recovery and actually make money in the process by recovering.

Clearly the time is ripe for this subcomnittee to set EPA on a new course that will actively discourage the land disposal of wastes that are inappropriate for such disposal. Quite frankly, we endorse to a great degree the approach taken by the State of California that that has been described by Mr. Stoddard today.

We would recommend that the subcommittee adopt amendments to the Resource Conservation Recovery Act which would do the following things:

One, require EPA to promulgate regulations to minimize the landfill disposal of all liquid wastes and permanent ban the landfill disposal of free liquid and bulk liquid hazardous wastes.

Senator **Chafee**. Would you consider what Mr. Kreutzen or Mr. Mobley was suggesting as land disposal?

Mr. **Early**. I would. I would think with respect to both of those land disposal techniques that it is highly appropriate for EPA to review the types of wastes and the circumstances for the use of those techniques.

I am not suggesting that they shouldn't be used for any wastes but clearly you can tell from the interchange between Mr. Mobley and Mr. Stoddard that there is some disagreement between the experts as to what wastes are appropriate for deep well.

That needs to be examined by EPA and not exempted in any fashion in our view.

Mr. **Mobley**. We are not asking for an exemption, but we are saying, don't set up a legislative argument that sweeps land treatment and deep well injection without, because EPA doesn't have the time to get to it.

Mr. **Early**. Two, require EPA to promulgate regulations prohibiting one or more methods of land disposal of specified hazardous wastes unless it determines the prohibition is not required. The specified wastes would be those already prohibited by the State of California.

Three, require EPA to review, on a tight deadline, all wastes identified or listed under section 3001 to determine if any of these wastes should be prohibited from being disposed of by certain methods of land disposal.

Four, require EPA to make the above prohibitions whenever it determines that a method of land disposal may not be protective of human health and the environment for as long as the waste remains hazardous, taking into account the long-term uncertainties associated with land disposal and the characteristics of the waste.

Five, legislatively mandate backup prohibitions of the land disposal of liquid wastes in landfills, and specified wastes should the EPA fail to meet the mandated schedule.

Obviously, these five elements essentially describe section 5 of H.R. 2867, as reported by the House Energy and Commerce Committee. We feel that this provision has a great deal of merit.

Senator CHAFEE. I am not sure what you mean by point 5.

Could you go through that again?

Mr. EARLY. Point 5 is what has already been referred to as the hammer. We feel that is the extensive experience we already have.

Senator CHAFEE. The hammer as I understand it is a time. You have to do it by a certain time.

Mr. EARLY. If the EPA fails, certain prohibitions would be statutorily mandated.

Senator CHAFEE. You wouldn't be able to, there is no alternative?

Mr. EARLY. That is correct.

Senator CHAFEE. You wouldn't be able to continue the land fill?

Mr. EARLY. Right.

Senator CHAFEE. If you don't meet the time.

Mr. EARLY. Right. Currently the problem we have throughout RCRA is the fact that for instance EPA delayed almost 5 years in finally promulgating its regulations for land disposal.

Something has to be done. Congress needs to make sure that the public doesn't suffer the consequences of EPA delay due to these circumstances. We think that the development of this technique of providing certain statutory backup provisions in circumstances where EPA fails to meet its deadlines can be an effective way to insure EPA does, in fact, meet deadlines.

Senator CHAFEE. I am not sure I understand you. Take your last statement on the bottom of page 6. You say this backup prohibition insures that the public will not suffer as a result of EPA indecision.

It seems to me, indeed, they will suffer. They will have no place to dispose of their waste.

Mr. EARLY. I don't believe that is going to be the case. We will see that if EPA fails to in a more sophisticated and refined fashion to delineate various wastes at least some highly toxic wastes will not be going into land disposal and more Superfund sites being created because the statutory mandate would fall.

Senator CHAFEE. You are saying they won't suffer through continuation of the landfill?

Mr. EARLY. That is correct.

Senator CHAFEE. But they might suffer through the fact that there is no place to put the stuff?

Mr. **Early**. We don't believe that is going to be the case. We think that the provision, once enacted, would stimulate alternatives to the landfill.

Senator **Chafee**. In 1 year? What do you say to that, Mr. Mossholder? Can your people can come up with all the necessary equipment?

Mr. **Mossholder**. I did state in the testimony that our members reported excess capacity in the order of 30 to 50 percent last year. I do realize and everyone should realize that that is on a national basis.

If you look from one State to the other, there are significant differences and there might be some local problems imposed with a 1-year type of ban, but by and large, there will be enough capacity for certain specific types of wastes, even in the short term, should they be banned to landfill.

Senator **Chafee**. Mr. Early, why don't you finish up?

Mr. **Early**. I really am essentially finished except to note that you expressed some concern about siting of landfill facilities and we feel very strongly that until we see a revamping of the whole regulatory scheme and encourage a reduction in the amount of waste going to land disposal, there is going to be continued public resistance to landfilling. It is only through a comprehensive program that really turns things around and creates public confidence that it is operating to make sure that they are not unnecessarily living by a land disposal facility; that you are going to get public acceptance of these facilities.

I also wanted to note one thing about your comment. I am not aware that that many State siting acts currently allow local override of a decision of a State board to site a facility.

Senator **Chafee**. No. I haven't taken a national poll. I haven't looked around. I just said it is increasingly virulent in the area that I come from.

Mr. **Early**. That is a longstanding tradition in New England with respect to municipal landfills as well as hazardous waste landfill facilities.

Senator **Chafee**. Municipal landfills are different. They have to take care of it somewhere because every household generates garbage. But the hazardous waste is somewhat different.

Let me ask you this: It has been my experience that in looking around there is just as much resistance to the alternative disposal methods as there is to the landfill. Everybody thinks that horrible things are going to happen with these alternatives. Mr. Stoddard says that the way to proceed is to have the alternative connected with the existing site. That was your point, wasn't it?

Mr. **Stoddard**. I think that is the pragmatic approach right now.

Senator **Chafee**. I think that is right. That assumes you have an existing site. I don't know. From your experience, gentlemen, what do you find? Any of you can volunteer on this, make your answers brief, but are there existing sites and enough sites to handle what is becoming a national problem?

I don't mean all in Alabama. I am talking about somewhere where it is convenient for the generators to dispose of their materials.

Mr. **Mossholder**. If I could respond.

Mr. **Stoddard**. I believe we need more sites. We need different types of facilities than we now have. I think there is an important distinction. I think the public is a lot more sophisticated than we give them credit for.

It wasn't EPA or the State of California to say no more landfills, but people refused to accept disposal facilities.

They are also sophisticated enough to know that we have to have some way to take care of our hazardous wastes. They want better facilities. We as Government regulators have to give them better facilities. These are not the $100 million centralized waste treatment plants located in some little community in New England that takes wastes for an entire region. They have to be smaller facilities, scaled to the community that they serve, providing a service to that community, one that they desperately need.

I think we have to change our whole approach to how we manage hazardous wastes, put facilities close to the source of generation, make them small, make them specialized, use state-of-the-art technologies and I don't think we will have a problem with public acceptance.

Senator **Chafee**. I wish I was as sanguine as you are. I think it is the easiest subject in the world for demagoges and there are plenty of demagogs around.

Maybe I am more gloomy about this than you are. Some give thought to using the Federal funds as some kind of leverage, no disposal site, no Superfund money. But go ahead.

Mr. Mossholder?

Mr. **Mossholder**. My company, as I mentioned, has had significant siting experience. I could go into all sorts of stories with you about difficulties we have encountered in the six or seven States we have been involved in.

Senator **Chafee**. Did you succeed? Did you get them in?

Mr. **Mossholder**. The only place we have succeeded is in the Province of Quebec, in Canada.

Senator **Chafee**. That is a modest record of success, I would say.

Mr. **Mossholder**. Yes. Our Canadian affiliate, in less than 2 years, permitted and constructed a 70,000-ton-per-year facility. The opening of the facility was yesterday. We have been active in the United States for 5 years and spent close to $15 million and have not been successful so far with the same technology.

Senator **Chafee**. How did Mr. Stoddard be so optimistic? He thinks in the human breasts beats a good deal of commonsense.

Mr. **Mossholder**. I think that is true, when you are talking about somebody else's backyard. In general terms, people will agree that alternatives are better than landfill. However, when you get to the local level, people expect and indeed demand perfection of these facilities, perfection in the technology, perfection in the operation, perfection in the siting, and more than that, guaranteed perfection.

They are all looking for a guarantee of minimum risk. There are really three lessons we learned in Canada, if I can briefly describe what we think may be lacking in this country.

No. 1, Mr. Early referred to. That is what I am calling a national policy, that when a land disposal is a last resort. That is what the people in my estimation are looking for first.

Second, they have to be told that there are alternatives and the alternatives are proper and capable of minimizing the risk.

You read in the papers, listen to the television, all you hear is the problems. Nobody is talking about the potential solutions to the problems.

The second need is for public education on a fairly wide scale to let the public know that sound alternatives to landfilling do exist and should be given a chance.

Problem 3 is lack of credibility on the part of the regulators, generators and the regulated community in general. This is a very large problem that Mr. Early's comment on, changing the whole regulatory program around.

Finally, perhaps most important at the moment, there is absolutely no incentive for any local community to host one of these facilities. There are very few places in the United States which generate enough hazardous waste of any single type to justify a capital efficient facility.

Our facilities cost in the neighborhood of $5 million. They process anywhere from 5 to 100,000 tons of inorganic waste a year. That is a pretty large facility.

The first one we attempted to locate was in the center of the State of Michigan which generates millions of tons a year of inorganic waste, at least it did at its peak in the late 1970's. We have been fighting with the local community for 5 years.

Senator **Chafee**. It seems to me you are making my case for you.

Mr. **Mossholder**. I am. I am agreeing with you.

The point I was trying to get to is that in Canada it worked. It worked very well for several reasons. The regulators in the Province of Quebec had credibility, number one. There was an excellent public education campaign sponsored by the Government to let the people know that there was a problem, that there was a solution to the problem.

No. 3, the Government of the Province of Quebec and the Federal Government arranged fairly modest sums of money to help the local community to overcome some of the perceived and real difficulties that the community saw in having the facility located there. Transportation was one.

Senator **Chafee**. We have got to give others a chance.

Mr. **Kreutzen**. In connection with that, what I observed in Europe was a very cooperative, unusually cooperative attitude between the regulated community and government and the real element of trust that exists; it wasn't government by hammer that we are hearing about today. I think somehow, I am agreeing, that we need to restore the public's trust. It isn't done by a lot of emotionalism and play to the press.

Mr. **Early**. My experience has been, Senator, that you have problems siting facilities once a critical mass of people has developed and really create enough political clout to stop the facility.

Essentially, what we are talking about is reducing the number of people who are going to virulently object to a minimum. The people who are immediately next door are hardly going to be nullified.

The question is, How many people further and further away are going to join? What I am suggesting is we need to create a system and public confidence that there won't be widespread problems. Let me also point out, incidentally, that also a victim compensation system along the lines that Senator Stafford and Senator Randolph proposed would also instill a little more confidence in the public that if problems occurred, there was something that could be done about it. There was a resource available to them.

Then you create a situation where responsible civic leaders are not going to join together with the people who are immediate neighbors to the facility and create this critical mass that is going to create enough political opposition to stop the facility.

Senator CHAFEE. What do you say to the problem that Mr. Mossholder raised that a community which doesn't generate enough waste to justify the capital expenditures that have to go into this, ends up as a net importer of hazardous wastes in order to make the thing work?

It seems to me that we have to take care of our local factory because that is where we work and you have got that rationale. But, then, as soon as you raise the specter of great trucks rolling over your roads, bringing it in from some outland State you run into trouble.

Mr. EARLY. That gets into one other aspect which I think is worth noting. That is some 80 percent of disposal is currently conducted on the site.

Senator CHAFEE. Of what?

Mr. EARLY. Most hazardous waste disposal is currently conducted on site. In other words, the kind of site facilities that you are talking about are servicing 20 percent of the waste generated according to EPA estimates. That mix of course may in fact change as a result of this kind of legislation.

But don't forget that this legislation also affects the extent to which generators of waste do something about their wastes on site.

Mr. MOBLEY. Mr. Chairman, I have had some recent personal siting experience.

Since 1980, we have sited two type 1 municipal landfills and one deep well for hazardous wastes. In the case of one of the landfills and the deep well, we had no opposition. I don't think we are ever, but even in spite of what I guess is a pretty lucky or good track record, I don't believe we are ever going to avoid difficult siting issues.

The permitee has got to do his part in providing a good site. The regulators have got to be, we have got to involve the public in the process and the regulators have got to do their job on the technical side.

They are also going to have to in the end bite the bullet and do what is appropriate under the law.

I don't think we ever get away from the emotional side of the siting issues. The alternative to not having very many waste sites is having one in every precinct, the ridiculous alternative.

That is the only way you involve the importation issue; I mean avoid it.

Senator CHAFEE. Thank you for coming.

I am gloomy about the siting. I don't know how to do it.

Mr. MOBLEY. I think we all are.

Senator CHAFEE. I appreciate each of you coming.

Thank you. That concludes the hearings.

[Whereupon, at 1 p.m., the subcommittee recessed, to reconvene at the call of the Chair.]

[Statements submitted for the record, responses to written questions, and the bill, S. 757 follow:]

TESTIMONY OF SENATOR JOHN C. DANFORTH
BEFORE THE
SUBCOMMITTEE ON ENVIRONMENTAL POLLUTION
COMMITTEE ON ENVIRONMENT AND PUBLIC WORKS

MR. CHAIRMAN, YOUR HEARING TODAY CONCERNS S. 757, THE SOLID WASTE DISPOSAL ACT AMENDMENTS OF 1983. I COME TO ASK YOUR ASSISTANCE ON A MATTER THAT IS ONLY PERIPHERALLY RELATED TO THE LEGISLATION AT HAND, BUT THAT IS OF VERY GREAT IMPORTANCE TO MY STATE. DURING THE LAST SIX MONTHS, THE STATE OF MISSOURI HAS HAD THE UNFORTUNATE EXPERIENCE OF SERVING AS A LABORATORY FOR THE INITIAL OPERATIONS OF THE SUPERFUND PROGRAM. THROUGH THE ACTIONS OF A SINGLE WASTE-OIL HAULER, MISSOURI WAS CONTAMINATED BY ONE OF THE MOST LETHAL CHEMICALS KNOWN TO MAN, DIOXIN. MORE THAN 200 POTENTIAL SITES OF CONTAMINATION HAVE BEEN REPORTED TO THE ENVIRONMENTAL PROTECTION AGENCY, AND 30 HAVE BEEN CONFIRMED. THE SUPERFUND PROGRAM HAS RESPONDED TO THIS EMERGENCY, BUT NOT WITHOUT DIFFICULTY.

AS WITH THE INITIAL OPERATIONS OF ANY PROGRAM, PROBLEMS HAVE ARISEN THAT COULD NOT BE FORESEEN IN THE DRAFTING OF THE SUPERFUND LAW--THE COMPREHENSIVE ENVIRONMENTAL RESPONSE, COMPENSATION AND LIABILITY ACT. THE PROBLEMS ARE NOT EARTH-SHAKING ONES, BUT THEY ARE IMPORTANT IN HUMAN TERMS. THEY NEED ADDRESSING TODAY IN MISSOURI, AND IN ALL LIKELIHOOD THEY WILL ARISE AGAIN, ELSEWHERE IN THE STATE OR NATION. ESSENTIALLY, THE SOLUTIONS THAT SENATOR EAGLETON AND I ARE PROPOSING WOULD EXPAND THE LATITUDE GIVEN TO

EPA TO RESPOND TO AN EMERGENCY INVOLVING TOXIC SUBSTANCE CONTAMINATION; I BELIEVE THEY SHOULD NOT PROVE CONTROVERSIAL. WE HAVE INTRODUCED THEM BOTH AS SEPARATE LEGISLATION AND ALSO AS AN AMENDMENT TO S. 757, AND IT IS THE LATTER THAT WE ASK YOU TO CONSIDER TODAY. WE BELIEVE THIS TO BE A MATTER OF SUFFICIENT URGENCY TO WARRANT ITS INCLUSION ON LEGISLATION DEALING NOT WITH SUPERFUND, BUT WITH RCRA.

OUR PROPOSAL ARISES OUT OF THE FOLLOWING FACT SITUATIONS. IN DECEMBER, THE CITIZENS OF TIMES BEACH, MISSOURI, WERE DRIVEN FROM THEIR HOMES BY THE RISING WATERS OF THE MERAMEC RIVER. THEY THEN WERE TOLD NOT TO RETURN BECAUSE OF DIOXIN CONTAMINATION IN THEIR COMMUNITY. THE GOVERNMENT PROVIDED TEMPORARY RELOCATION ASSISTANCE TO THE MAJORITY OF RESIDENTS THAT HEEDED THAT WARNING, AND THE ASSISTANCE MITIGATED THE FINANCIAL HARDSHIPS INVOLVED IN RELOCATION. BUT THE OWNERS OF BUSINESSES IN TIMES BEACH FOUND THEMSELVES IN QUITE A DIFFERENT PICKLE. NOT ONLY WERE THEY TOLD TO STAY AWAY FROM THEIR BUSINESSES--SO WERE THEIR CUSTOMERS. THEY WERE, IN EFFECT, PUT INTO A SITUATION WHERE THEIR INCOME WENT TO ZERO AND THEIR OBLIGATIONS CONTINUED UNABATED--A PRESCRIPTION FOR BANKRUPTCY. AS AN OBVIOUS COROLLARY, SOME OF THEIR EMPLOYEES WERE PUT OUT OF WORK.

IN THE CASE OF TIMES BEACH, AFTER TWO MONTHS EPA DECIDED TO RELOCATE THE RESIDENTS PERMANENTLY, AND THE BUSINESSES WERE ASSURED OF A FRESH START. EPA WAS AIDED IN REACHING THIS DECISION

BY THE FACT THAT THERE IS NO ESTABLISHED TECHNIQUE FOR REMOVING DIOXIN FROM SOIL AND TIMES BEACH IS SUBJECT TO FREQUENT FLOODING. THE DANGER TO THE RESIDENTS WAS SO OBVIOUS THAT THERE COULD BE LITTLE QUESTION AS TO THE REMEDY. BUT OTHER CASES MAY NOT BE SO OBVIOUS, AND THEY MAY LEAD NOT TO PERMANENT RELOCATION, BUT TO CLEANUP. IN SUCH CASES BUSINESSES MAY FIND THEMSELVES UNABLE TO CONTINUE IN OPERATION FOR MANY MONTHS, AND, MR. CHAIRMAN, THERE ARE NOT MANY SMALL BUSINESSES THAT COULD LONG SURVIVE UNDER THOSE CIRCUMSTANCES. JUSTICE DELAYED THUS BECOMES JUSTICE DENIED.

THIS ANOMALY WAS NOT SPECIFICALLY ADDRESSED BY THE SUPERFUND LAW, BUT I BELIEVE THE OMISSION WAS NOT DELIBERATE. WHAT WE PROPOSE IS THAT, DURING PERIODS OF TEMPORARY RELOCATION, SUPERFUND PAY NOT ONLY THE COSTS OF SHELTER FOR THE RESIDENTS INVOLVED BUT ALSO THE DEBT SERVICE OF THE BUSINESSES. THIS "HOLD HARMLESS" SITUATION WOULD CONTINUE ONLY UNTIL PERMANENT RELOCATION WAS ACCOMPLISHED OR UNTIL IT WAS REJECTED AND THE TEMPORARY RELOCATION ENDED.

IN ADDITION, SOME OF THE AID AVAILABLE TO INDIVIDUALS UNDER THE DISASTER RELIEF ACT OF 1974 WOULD BE PERMITTED FOR THOSE PERSONS THROWN OUT OF WORK BY THE RELOCATION. THIS COULD INCLUDE UNEMPLOYMENT AND REEMPLOYMENT ASSISTANCE, FOOD STAMPS, AND GRANTS TO MEET NECESSARY EXPENSES OR SERIOUS NEEDS OF INDIVIDUALS OR FAMILIES IF THOSE EXPENSES ARE NOT COVERED BY OTHER AID PROGRAMS.

Such a provision simply would extend to victims of a manmade disaster some of the humanitarian relief measures that we now accord to victims of natural disasters.

The second fact situation follows. A trailer park in Gray Summit, Missouri, recently was found to be contaminated with up to 1100 parts per billion of dioxin--that is, 1100 times the amount deemed to be acceptable in soil. Again, the residents were temporarily relocated. This time it was very obvious from the beginning that permanent relocation is the only answer that makes any sense at all. But as implemented by the EPA, the Superfund law does not allow for such an immediate response, even if it is the most humane and cost-effective strategy available.

The amendment we are proposing would give EPA the authority to proceed immediately with permanent relocation if it determines that to be the best option. This change in the law was suggested by Governor Kit Bond of Missouri at the annual meeting of the National Governors Association and adopted by that group.

Mr. Chairman, this legislation simply would expand EPA's flexibility in responding to an emergency involving hazardous substances. The State of Missouri unfortunately was the test case that proved the need for changes in law, but other states will be afflicted by like disasters and would benefit by the

CHANGES WE PROPOSE TODAY. I ASK YOUR CONSIDERATION OF THIS URGENT MATTER SO THAT THE CHANGES WE PROPOSE CAN BE IMPLEMENTED IN MISSOURI NOW AND BE AVAILABLE LATER WHEN NEEDED ELSEWHERE IN THE NATION.

STATEMENT BY SENATOR THOMAS F. EAGLETON BEFORE THE ENVIRONMENTAL POLLUTION SUBCOMMITTEE

WEDNESDAY, JUNE 8, 1983

HELP DIOXIN VICTIMS

Mr. Chairman, I am pleased to provide the Subcommittee on Environmental Pollution with my thoughts on S. 1412, a bill to authorize community relocation and business protection in case of toxic substances contamination.

By the most unfortunate set of circumstances, Senator Danforth and I have become somewhat expert on the intricacies of the Superfund Act (Comprehensive Environmental Response Compensation and Liability Act).

It has been a painstaking and frustrating process to watch the Superfund Act be put to its first practical test in meeting a large toxic substances emergency.

As the Subcommittee knows, Missouri has a dioxin crisis on its hands. Currently, there are 31 confirmed sites. An additional 102 sites have been under investigation. Luckily, 75 have been cleared, but new sites are called in for investigation on a weekly basis.

All of the poisoned earth is a result of a hauler of salvage oil, Russell Bliss, who sprayed waste oil to keep down the dust. It is a common practice in many rural areas. The waste oil was spiked with a sludge that Mr. Bliss had been paid a fee to remove from the Northeastern Pharmaceutical and Chemical Company. The spraying occured on city streets, (Times Beach); in trailer parks (Quail Run Park); in residents' back yards (Minker-Stout homes); on stable runs (Shenandoah Stables); in commercial businesses (Baxter-Nurseries); and sometimes truck freight yards (Hall Street Truck Sites). The result is that many of our Missouri residents are innocent victims of toxic dioxin spraying.

These Missouri residents are facing health tests and concerns, some face relocation from their homes, some are having to permanently relocate their families to new homes, and one whole town is being abandoned altogether. All of this is through no fault of the residents.

(continued)

The bill that Senator Danforth and I have sponsored is an effort to assist victims of toxic waste sites, who are advised to relocate because of the imminent danger. The Superfund Act currently provides for the payment of temporary relocation housing for individuals removed from a hazardous waste area. It does nothing to further aid the victims or businesses, which may be forced to close under the health advisory. This bill addresses this gap in the Superfund Act.

For instance, in Times Beach, Missouri, 30 businesses were forced to close their doors when the news of the dioxin hit. Several months went by before the Environmental Protection Agency reached its decision to buy out the town. In those interim months, businesses were almost forced into bankruptcy because they were unable to pay the bare minimum expenses needed to remain solvent. In some cases, individuals not only were told to move from their homes, but the businesses they worked for were also closed, leaving them without means to support their families. Victims of natural disasters caught in this emergency condition are provided for under the Disaster Relief Act. This bill provides the same kind of assistance for victims of man-made disasters.

Secondly, the bill will provide payment of principal and interest on business debt for those businesses that are caught in the evacuation area. It seems only fair that we try and assist these people in this interim period, so that they have a chance to rebuild their businesses and lives at the end of the disaster.

I am pleased that the Committee has agreed to hear the testimony on this bill today. It shows the commitment that the Senate Environment and Public Works Committee has shown in helping to assure that the Superfund Act is administered in the manner Congress intended when it passed the bill in 1980.

Last week, New Jersey found dioxin sites in Newark. Next week it could be another state. I feel that this bill will help ease the pain of many of our Americans who are instantly caught in the nightmarish experience of our hazardous waste legacy.

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STATEMENT OF
LEE M. THOMAS
ACTING ASSISTANT ADMINISTRATOR FOR
SOLID WASTE AND EMERGENCY RESPONSE
U.S. ENVIRONMENTAL PROTECTION AGENCY
BEFORE THE
SUBCOMMITTEE ON ENVIRONMENTAL POLLUTION
COMMITTEE ON ENVIRONMENT AND PUBLIC WORKS
UNITED STATES SENATE
June 8, 1983

Thank you, I am Lee M. Thomas, the Acting EPA Assistant Administrator for Solid Waste and Emergency Response. I appreciate the opportunity to be here today to discuss the Agency's efforts in the implementation of the Resource Conservation and Recovery Act. During the course of this testimony, I will be discussing the status of many of the projects and issues currently facing the hazardous waste program.

General Status of the Program

The July 1982 promulgation of land disposal permitting standards essentially completed the core hazardous waste management regulatory program. Standards are now in place for hazardous waste generators, transporters, and most types of treatment, storage, and disposal facilities. To assure compliance with the RCRA regulations, EPA and the States conducted over 14,000 inspections in Fiscal Year 1982.

Completion of the basic regulatory framework has allowed the Agency to shift its focus towards (1) implementation of the Act through the permitting of facilities and the enforcement program; (2) the process of granting States final authorization to run their own hazardous waste program in lieu of the Federal program, and (3) filling-in missing pieces of the regulatory program. I will discuss each of these efforts today, beginning with the task of filling in gaps in the RCRA regulatory program.

Burning and Blending

Currently, hazardous waste burned for beneficial energy recovery is exempt from RCRA regulation as a resource recovery practice. EPA has recently proposed a new rule amending the definition of solid waste. This proposal addresses EPA's current jurisdiction over the use, reuse, recycling, and reclamation of hazardous waste. As part of this proposal, EPA asserts jurisdiction under RCRA over the practice of burning waste as fuel.

We share your concern, as expressed in Section 7 of S.757, over burning of hazardous waste in boilers. This practice could, in some cases, result in unacceptable levels of hazardous emissions. There have also been incidents of hazardous waste being blended into conventional fuels and sold to unknowing users. In response to this problem, the Agency is already instituting a regulatory effort using a three phase approach.

The first phase, which has already been instituted, addresses those situations in which hazardous wastes or waste mixtures with little or no energy value are being burned in boilers. This practice does not constitute legitimate recycling because wastes with low energy value do not serve the purpose of fuel. A new enforcement program instituted in January of this year will focus on the "sham" recycling practice of burning hazardous wastes with low energy value. As part of this program, EPA has begun inspecting both waste oil processors and fuel users. We have also conducted joint inspections with States and provided States with technical advice on waste oil investigations.

The second phase of the Agency's efforts will be the promulgation of a standard that limits levels of hazardous constituents that may be present in waste derived fuels, including used oils sold to residential, commercial, and institutional users. In addition, the Agency is considering promulgating notification and recordkeeping requirements for persons blending, distributing, transporting, and burning hazardous waste-derived fuels. The notification requirement will enable the Agency to identify persons engaged in burning and blending activities. The recordkeeping requirement will enhance the Agency's enforcement of the fuel specification. The Agency expects to propose the requirements in this phase sometime this fall, pursuant to our existing authority under RCRA.

The third phase is the issuance of technical standards covering all situations where the burning of hazardous waste in industrial boilers and industrial furnaces can result in adverse affects. Emissions tests are now being conducted to determine the risks presented by various boiler and waste combinations. Based on these tests and an analysis of the costs of various options, our schedule for proposal of these standards is the summer of next year. After completion of this third phase, we believe that the burning and blending of hazardous waste as fuel will be comprehensively regulated using RCRA's existing authorities.

Small Quantity Generators

The second major area where additional regulatory control is necessary is waste generated by small quantity generators. Currently, most generators of less than 1000 kilograms of hazardous waste per month are exempted by regulation from RCRA Subtitle C regulatory control if their wastes are managed at EPA or State approved hazardous waste facilities or State approved solid waste facilities. For acutely hazardous wastes, the exemption level is 1 kilogram per month. The justification for this exclusion when it was promulgated in 1980 was that initial implementation efforts should focus on the larger generators who EPA estimated generated between 95 and 99 percent of all hazardous waste. However, EPA stated at that time that the small quantity generator exclusion would be re-examined in two to five years. We are initiating a study of small quantity generators, their wastes, and current waste management practices because our existing data on small quantity generators does not provide a sufficient basis for a sound and well-reasoned regulatory program covering all wastes produced by small quantity generators. This study is in line with the provision in S.757 mandating a study of the small generator issue. Using the information from this study, we intend to develop a workable and environmentally sound regulatory program for small quantity hazardous waste. In the interim, we will review all new listings, as was done with the recently proposed dioxin listing, to determine if a lower small quantity generator exclusion level is appropriate. We will also begin to review existing listed wastes for the same purpose.

We are also considering requiring that a notice accompany shipments of hazardous waste from generators of more than 100 kilograms of hazardous waste per month prior to completion of the study. Such a notice would identify the nature of the wastes and the fact that they are hazardous so that transporters and receiving facilities are alerted as to the type of waste they are handling. The notice requirement must be consistent with the existing Department of Transportation hazardous materials transport rules.

We believe that any notice requirement applicable to small quantity hazardous waste must provide sufficient lead time of at least six months for a broad education program aimed at the many thousands of small quantity generators. We envision this education process to be a joint effort on the part of EPA, the States, and trade associations which represent the wide variety of businesses and industries that will be affected.

Land Disposal

As I mentioned earlier, last July EPA promulgated a very comprehensive and stringent set of land disposal standards. These standards contain design and operational requirements, such as liners and leachate collection systems, aimed at preventing ground-water contamination. They mandate ground-water monitoring to detect ground-water contamination, and prescribe corrective action where ground-water contamination occurs. These regulations prohibit or restrict the land disposal of reactive wastes, ignitable wastes, incompatible wastes, such as strong acids or caustics, and containerized liquid wastes. In addition, we are examining a number of near-term rule changes including a restriction on the disposal of bulk liquids in landfills and a requirement that lateral expansions of existing facilities occurring prior to permitting meet the liner requirement for new facilities. In the longer term, we will be considering standards addressing air emissions from land disposal facilities, additional location standards for land disposal facilities, and revisions to the liner standards.

Along with these near-term controls, we have begun a program to identify wastes that are highly mobile, toxic, and persistent and have a high tendency to bioaccumulate. We will explore the availability of alternate management technology for these wastes as well as the costs and environmental impacts of these alternate technologies. Based on the inherent characteristics of the waste and the availability of more environmentally protective alternative technologies, we intend to prohibit additional wastes from disposal in or onto the land. We believe that it is sound public policy to discourage land disposal of wastes which are harmful to public health or the environment and may not be safely contained in the long-term because of the uncertainty of ensuring care and oversight in the long run.

I would like to briefly address some of our concerns with the land disposal restrictions provision currently contained in H.R. 2867. Although we support the goal of restricting the land disposal of certain hazardous wastes, reviewing all of the wastes currently regulated under Subtitle C of RCRA to determine whether their land disposal should be restricted is a highly complex and technical undertaking. This process involves a detailed analysis of the inherent characteristics of each of the listed wastes and all of the wastes identified as hazardous based on the characteristic tests. It also involves a comprehensive analysis of the long-term effectiveness of the various land disposal technologies. It will require a large amount of data collection, highly skilled technical staff, and a great deal of attention from senior management to resolve tough policy issues. Based on these considerations, we believe that the deadlines in the House bill for restricting the land disposal of hazardous waste are unrealistic.

As the House bill is currently written, EPA must submit to Congress, within six months of enactment, a schedule for determining whether wastes should be prohibited from land disposal. If EPA fails to meet the deadlines for determining whether wastes should be prohibited from land disposal, such wastes become prohibited by operation of the law. Because this provision operates to give EPA's schedule regulatory effect, we must go through formal rulemaking in developing the schedule. Based on this consideration, and the importance and potential effect of this schedule, we believe that the six month deadline is unrealistic. If EPA fails to meet a deadline for one or more wastes and an automatic prohibition occurs, the alternatives then available would be to shut down the operation generating such wastes, place wastes in long-term storage or treat them. Capacity for long-term storage of large quantities of waste may not be available or, if it is, it may present greater environmental risks than some types of land disposal. An automatic prohibition leaves open the question of whether there will be alternative treatment capacity available, what kind of treatment for a waste is acceptable prior to land disposal and whether residuals resulting from treatment of prohibited wastes can be land disposed. As stated in the Office of Technology Assessment's report on Technologies and Management Strategies for Hazardous Waste Control, treatment residuals are among the types of wastes most suitable for land disposal. In summary, we believe that the deadlines placed on EPA in the House bill are unreasonably short and that confusion and adverse economic and environmental effects likely will result from an automatic prohibition.

We are also concerned that the standard for banning wastes from land disposal contained in the House bill is deficient in that it does not require the Agency to determine the availability of alternative management technologies that will be more environmentally protective than land disposal. Rather, it may lead to the prohibition of virtually all hazardous wastes from land disposal without consideration of the level of protection afforded by the alternatives to land disposal.

Listing/Delisting

The third major area of new regulatory activity involves the listing and delisting of hazardous wastes. We currently have a number of new listing proposals under development within the Agency. Most of the listings under development will result from detailed analyses now underway of waste and waste management practices in several parts of the organic chemicals industry. The most recent product of our efforts to broaden the universe of hazardous wastes is the proposal to list dioxin-containing wastes. Pursuant to this proposal dioxin-containing wastes would be included on the list of acutely hazardous wastes and thus subject to a one kilogram per month small quantity generator exclusion. The proposal also prescribes a special scheme for managing these wastes. For the most part, these wastes will have to be managed at fully permitted RCRA facilities rather than interim status facilities.

The Agency is also considering modifications to the delisting procedure. As you may know, delisting is the removal of a specific waste generated at a specific site from control under Subtitle C of RCRA. Delistings are initiated by a party petitioning the Agency. A specific waste will be delisted if it does not contain the constituents or exhibit the characteristic for which the waste was generically listed. The rule change we are considering would allow us to consider constituents, in addition to those for which the waste was listed, in deciding whether to delist a particular waste.

In summary, I believe that the efforts that I have described today aimed at filling in gaps in the regulatory program, along with efforts to improve existing regulations, are necessary to provide the kind of comprehensive hazardous waste management program envisioned by the passage of the Resource Conservation and Recovery Act.

Permitting Program

While refinement of the regulatory program continues, the Agency has moved into full scale implementation of the RCRA permitting program. I believe that the permitting of hazardous waste management facilities is one of EPA's most important responsibilities. As contemplated by RCRA, this responsibility does not rest solely with EPA but rather is shared with the States as they become authorized. In December 1981, EPA received clearance to begin calling in permit applications from new and existing hazardous waste storage and treatment facilities. Since that time, EPA and authorized States have called in over 1,400 storage and treatment facility permit applications.

Although permitting efforts thus far have centered on storage and treatment facilities, the more recent promulgation of incinerator and land disposal permitting standards has enabled the Agency to shift its focus to these types of facilities. Within this category, the Agency will give highest priority to the largest facilities and those presenting the greatest risks of adverse affects. EPA began calling in disposal permit applications earlier this year, with the first applications due in August and September of 1983. Since January 26, the effective date of the land disposal standards, we have called in over 150 land disposal permit applications. The first of the 115 incinerator permit applications which have been called in are now being received and processed.

To address the problem of late or incomplete applications, the Agency has developed an enforcement strategy under which the Agency will issue compliance orders against owners and operators who fail to submit timely and complete RCRA applications. These orders will, at a minimum, impose penalties and set dates for submission of complete applications. If the owner or operator does not submit a complete application by the date set in the compliance order, the Agency can terminate the facility's interim status. Once a facility's interim status is terminated, it must cease all hazardous waste treatment, storage, and disposal activities.

The permitting program is now underway but is clearly still in the infant stage. We have found, from our limited experience to date, that many complex issues arise during the permit issuance process. The public often is intensely interested in understanding and participating in discussions on these issues. Both the time and resources necessary to issue high quality permits are likely to be considerably greater than we originally anticipated, thus making the statutory deadlines for permit issuance contained in H.R. 2867 unrealistic. Although we recognize the need to issue permits as expeditiously as possible, we wish to avoid a situation of sacrificing the quality of permits in order to meet stringent statutory deadlines.

State Authorization

As I mentioned earlier, another important aspect of RCRA implementation is the process of authorizing States to run their own hazardous waste program in lieu of the Federal program. The end result of this process will be a delegation to the States of much of the responsibility to ensure proper hazardous waste management. To expedite the authorization process, States have been authorized to run portions of the hazardous waste program through a phased approach. Thirty-seven States and territories have now been granted interim authorization to run a portion of the hazardous waste program.

To assist States in developing their programs and in completing their authorization applications, we have widely disseminated a draft final authorization manual for review, which we expect to issue in mid-June. We are also in the process of conducting reviews of State statutes to identify, as early as possible, those areas where States need additional statutory authority to be granted final authorization. Our primary objective is to grant final authorization to as many States as possible by January 1985, the statutory expiration of the interim authorization period, while assuring that those State programs that are authorized are of a high quality. However, because not all States will meet the January 1985 deadline, we have begun to devise a strategy by which EPA will manage the program in those States which do not receive final authorization before the expiration of the interim authorization period.

The States have shown a strong interest in receiving authorization to run their own hazardous waste management programs. I believe this interest demonstrates their commitment to deal with the hazardous waste issue. Cooperative agreements and interim authorizations have resulted, in the space of only a few years, in new State laws and regulations, reorganizations of State agencies responsible for hazardous waste programs, additional State personnel working in the hazardous waste area, and a greatly improved understanding of the Federal regulatory program and the hazardous waste issue in general. We at EPA expect to vigorously continue our efforts in the State authorization process.

RCRA Enforcement - Civil

One of the most important aspects of RCRA implementation is the enforcement program. This program has focused on monitoring and evaluating hazardous waste generators, transporters, and treatment, storage, and disposal facilities for compliance with statutory and regulatory requirements of RCRA and encouraging and promoting compliance by hazardous waste handlers through appropriate administrative, civil, and criminal enforcement actions. The program also provides support and evaluation to assist program implementation in States that have received interim or final authorization, as well as States where programs are implemented by means of Cooperative Agreements.

Compliance monitoring inspections aimed at discovering violations are conducted by authorized States and, in non-authorized States, by EPA or State personnel under cooperative arrangements. The highest priority for inspections is given to those operations potentially posing the most significant threats to human health and the environment.

Enforcement of RCRA will focus on those violations that are discovered through compliance inspections. All violations detected will be addressed with appropriate enforcement action, from warning letters to criminal enforcement action.

As I stated earlier, over 14,000 compliance inspections were conducted by EPA and States in Fiscal Year 1982. Violations detected in Fiscal Year 1982 by EPA resulted in the issuance of 989 warning letters and 227 Compliance Orders. In Fiscal Year 1983, EPA and the States have targeted to conduct almost 17,000 inspections, a 13% increase over last year. Information reported thus far for the first quarter of Fiscal Year 1983, indicates that approximately 3400 inspections have been conducted by the States. Through the second quarter of FY83, EPA has conducted over 1400 compliance monitoring and State oversight inspections.

Another important aspect of the enforcement program is to aid in the implementation of RCRA regulations. As I mentioned earlier, our enforcement strategy in the area of burning and blending of waste-derived fuels is an important tool in ensuring that hazardous wastes with low energy value are not being burned under the guise of recycling. Likewise, our enforcement strategy aimed at improving the quality of permit applications is an essential element in ensuring the issuance of timely and high quality permits.

As the RCRA program evolves, the role of the Federal RCRA enforcement program will change to provide support and evaluation to assist in program implementation in States that have received interim or final authorization. EPA's focus will shift to joint and oversight inspections, and to providing technical expertise to States. As the permitting program progresses, inspections will be conducted at facilities still under interim status to gather information for permitting purposes. Inspections will also be conducted at facilities that have received permits to evaluate compliance with their permits. Enforcement action will be taken against facilities that are found to be in violation of their permits. These facilities will be placed on compliance schedules, which if not met, will result in formal enforcement action by EPA. Follow-up inspections to evaluate if a handler has met compliance schedules and returned to compliance will be conducted more frequently in the future.

I would like to briefly address two areas where we support amendments to RCRA to clarify and strengthen our civil enforcement authority.

The existing statutory language of Section 3008 expressly provides for EPA's assessment of penalties for prospective violations of compliance orders. However, while the language generally supports the view that EPA has the authority to assess civil penalties for violations occurring prior to the issuance of a compliance order, this authority is not clear. We believe that such a clarification would make compliance orders less vulnerable to legal challenges during enforcement proceedings.

S.757 already contains an amendment to Section 7006 that clarifies that defendants in Federal enforcement proceedings cannot challenge final regulations if the regulations could have been challenged in a court of appeals at the time they were issued. We support a further addition to Section 7006 to clarify that similarly, defendants in Federal enforcement proceedings cannot challenge permit terms and conditions or State program provisions if there has already been an opportunity to challenge such provisions.

RCRA Enforcement - Criminal

Significant activity is underway in the area of RCRA criminal enforcement. EPA has recently established a Criminal Enforcement Division with a staff of 23 criminal investigators and three attorneys. The creation of this office reflects the Agency's belief that responsible use of criminal sanctions is an essential component of an overall enforcement program.

Since the criminal provisions became effective, 20 cases involving alleged violations of RCRA have been referred to the Justice Department. Four cases have already resulted in indictments. As of May 31, 1983, the Criminal Enforcement Division docket listed 95 active investigations that are known to involve RCRA and/or CERCLA violations.

The Agency's present RCRA criminal enforcement efforts have revealed several areas we believe are not adequately covered under the present statutory structure. Therefore, we feel that several statutory changes should be considered to clarify and support the criminal enforcement provisions presently contained in RCRA. Among other things, amendments are needed to (1) clarify the criminal liability of generators of hazardous waste who knowingly cause waste to be transported to an unpermitted facility; (2) clarify that criminal penalties apply where hazardous waste is transported or caused to be transported without a manifest; and (3) clarify that criminal penalties apply for the knowing violation of interim status standards. Additionally, it should be made clear that knowing omissions of material information in documents required to be filed under RCRA or the knowing failure to file required materials are criminal violations under RCRA.

Conclusion

During the past several months in my capacity as Acting Assistant Administrator for the Office of Solid Waste and Emergency Response, I have become aware of the large amount of work that remains to be done in the RCRA program. There are several areas where further regulatory control is needed and I believe that the Agency is making significant progress in addressing these areas. In addition, we are developing a strong enforcement program to assure compliance with the laws and regulations now in effect. The permitting program is underway but much remains to be done. Our goal is to issue permits as expeditiously as possible, while assuring that all permits issued are of a high quality. Lastly, we are committed to assisting States in obtaining final authorization before the expiration of the interim authorization period.

I thank you very much for the opportunity to share these thoughts. I will be happy to respond to any questions you might have.

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
WASHINGTON, D.C. 20460

OFFICE OF
SOLID WASTE AND EMERGENCY RESPONSE

JUN 21 1983

Honorable John H. Chafee
Chairman, Subcommittee on Environmental Pollution
Committee on Environment and Public Works
United States Senate
Washington, D.C. 20510

Dear Senator Chafee:

This is in response to your June 9 letter asking questions as a follow up to the RCRA Reauthorization hearings on June 8 and 9. Enclosed are answers to several of the questions. Jo Cooper asked that we address these questions first. The responses to the remaining questions are taking somewhat longer to draft and will be provided later this week. Also enclosed are EPA's responses to questions posed by Senator Randolph concerning issues addressed in S. 757.

Thank you for providing us with the opportunity to comment upon these important issues. We look forward to continuing to work with you and the Subcommittee on the RCRA reauthorization effort.

Sincerely yours,

Lee M. Thomas
Acting Assistant Administrator

Enclosures

SMALL QUANTITY GENERATORS

How soon will the Agency complete the small quantity generator study?

Our target completion date is May, 1985.

How quickly can the regulatory program for small quantity generators be put into place?

We plan on issuing a proposed rulemaking in May 1985 with the completion of the study. It will take approximately 12 months from that time to promulgate a final rule (allowing time for public comment, analysis of public comment, and development of the final rule based on the analysis). The rule would then become effective 6 months from promulgation (in accordance with the 6-month effective date requirement of Section 3010 of (RCRA). We believe that at a minimum a 6 month effective date will be necessary (even if we are given statutory authority to provide for a shorter effective date) since some sort of educational program aimed at small quantity generators will be necessary to effectively implement the program.

Will EPA conduct a rulemaking to determine whether a quantitative cut-off is appropriate and at what level it should be?

A formal rulemaking will be conducted in establishing the SQG regulatory program. One of the major issues in this rulemaking will undoubtedly be whether a quantitative cut-off is appropriate and what the level should be. EPA's proposal may suggest different cut-off levels for different waste types based on the inherent hazards of the wastes.

FEDERAL FACILITIES

1. Are the RCRA regulations imposed on hazardous waste sites at Federal facilities in the same way as other facilities?

Yes. Section 6001 of RCRA imposes the RCRA regulations on Federal facilities by providing that,

> "Each department, agency, and instrumentality of the executive, legislative, and judicial branches of the Federal Government (1) having jurisdiction over any solid waste management facility or disposal site, or (2) engaged in any activity resulting, or which may result, in the disposal or management of solid waste *shall be subject to, and comply with, all Federal, State, interstate, and local requirements* . . . respecting control and abatement of solid waste or hazardous waste disposal *in the same manner, and to the same extent, as any person* is subject to such requirements..." (emphasis added)

This section does allow exemptions from the requirements if the President finds that it is "in the paramount interest of the United States to do so." However, no such exemptions have been granted.

RCRA Section 1006 provides that RCRA shall *not* apply to substances or activities otherwise regulated under specific Acts (most notably, the Atomic Energy Act) "...except to the extent that such application (or regulation) is not inconsistent with the requirements of such Acts."

Thus, Federal facilities generally are subject to the same requirements as are other, non-Federal, facilities except for the financial responsibility requirements of 40 CFR Parts 264 and 265. For example, one Federal facility, Umatilla Army Depot in Oregon, has already received a permit and others are progressing through the application and permitting process.

2. What kind of data does EPA have on the status of operating and closed Federal facilities?

EPA has received Part A permit applications from 314 Federal facilities who are operating and need a RCRA permit because they handle hazardous waste. EPA also has inspection information on many of these facilities. Federal facilities are required to notify EPA prior to initiating closure. Based on a preliminary survey of our regional offices, it appears only a few Federal facilities have submitted a closure notification to date.

4. Do Federal facilities have to get RCRA permits to operate?

Federal facilities in most circumstances must have RCRA permits to operate, the same as non-federal facilities. Exceptions are provided where it is in the national interest to waive compliance. We have issued one permit to a Federal facility and that is The Umatilla Army Depot in Hermiston, Oregon. The permit is for storage and treatment activities.

8. How aggressive has EPA been in seeking information and compliance for Federal facilities?

EPA regional offices have conducted inspections at many Federal facilities to assess compliance with the regulations. In addition, the EPA Office of Federal Activities has been working directly with a number of other Federal agencies to be sure they understand the RCRA requirements and have taken steps to insure their activities are in compliance with those requirements. OSWER recently initiated a special study of Federal facilities. The purpose of the study is to confirm that we have identified all Federal facilities that must comply with RCRA, to assess the level of compliance of these facilities, and to identify any specific types of facilities that appear to have significant compliance problems.

SUBTITLE D

1. Should more attention be paid to solid waste management facilities?

Subtitle D of RCRA established a State-Federal cooperative effort to encourage environmentally sound methods of managing solid waste. Under Subtitle D, EPA was assigned the role of developing guidelines for State solid waste management plans and criteria for determining acceptable disposal facilities and practices. From FY 1977 - FY 1981 EPA also provided States with funds and guidance to develop their solid waste management programs. State program development under Subtitle D included the development of State regulatory and enforcement programs, the inspection and evaluation of disposal facilities, and the development of comprehensive State plans. Since that time States have been responsible for managing their solid waste programs, which EPA helped develop, in accordance with their plans and overall State priorities. We are currently in the process of reassessing the need for additional solid waste requirements given the fact that we are still developing and implementing hazardous waste requirements.

2. What requirements are imposed on sanitary landfills?

There are no Federally imposed regulatory requirements for sanitary landfills. The Federal "Criteria for Classification of Solid Waste Disposal Facilities and Practices" (40 CFR 257) sets performance standards for solid waste facilities; however, RCRA does not provide a Federal enforcement role. Rather, the criteria are implemented by States. States with approved State plans (22 at present) have adopted regulations at least as stringent as these criteria. Other States have or are in the process of adopting the criteria or more stringent standards.

3. How many of the States have completed the open dump inventory and how many [facilities] are in compliance with the findings of the inventory?

No State has completed the inventory. We estimate that only about 3% of the solid waste disposal sites in the country have been evaluated for the inventory. Large numbers of industrial on-site disposal facilities and surface impoundments have not been evaluated.

States have evaluated approximately 10,000 facilities, 2,000 of which were found to be open dumps. However, not all of the remaining 8,000 facilities were evaluated against all the criteria.

4. How many [States] have solid waste plans against which they operate?

Twenty-two States have EPA-approved plans, and five States have partially approved plans. Twenty-six additional States have draft or adopted plans under review by EPA. The three remaining States/Territories have not submitted a plan.

PERMIT LIFE

1. Should RCRA permits be written for a specified period of time - 5-10 years?

and

2. Should the permit life vary for type of facility, capital requirements of facility, risk of health or environmental damage or other factors?

Present Federal regulations (§270.50) require that RCRA permits last a maximum of ten years. At the end of the permit period, the permittee must reapply for a new permit. Under the present rules the duration of a permit may not be changed unless the permit is revoked and reissued.

The recent litigation settlement between the Natural Resources Defense Council and EPA included a provision that EPA would propose regulations for permits that would last for the "lifetime" of the facility and that EPA would broaden the provisions for revising the duration of permits so that EPA could make revisons to correct errors or to include provisions required by new regulations. In February 1983, EPA proposed a regulation that proposed permits for all hazardous waste management facilities that would last for the "design life" of the hazardous waste management facility. Design life would be determined by such things as manufacturer warranty. EPA also proposed a more liberal reopening provision covering errors and new regulations.

Forty-nine comments were received on the lifetime permit proposal. Our analysis to date of these comments indicates a majority of the commenters favored the concept of longer permits, but there was great disagreement over particulars such as how to determine "design life", how often the permit can be reopened and how much public input will be allowed on reopened provisions. Several state agencies were opposed to the proposal on the grounds that a "lifetime" permit will prevent updating permits to incorporate new technology. The RCRA Permit Advisory Committee (RCRAPAC) suggested 30 year permits for storage and treatment facilities and 10 year permits for land disposal facilities. RCRAPAC also suggested a liberal reopener similar to that contained in EPA's proposal.

Under the RCRAPAC recommendation, the operating record and compliance history of permittees would be reviewed every five years after which EPA could leave the permit unchanged, modify it or even terminate the permit. The review would be subject to public notice, but not public hearing.

Since a major argument for "lifetime" permits concerns cost of reapplying for a new permit, the five year review would eliminate the cost of reapplying while also giving the regulatory agency a set time for revising any permit conditions, based on the permittee's record.

The Agency is currently considering the comments it has received on its proposal before formulating a decision on whether to promulgate, withdraw, or modify the regulatory proposal for "lifetime permits".

PERMITS

1. How many permits for various types of facilities has EPA approved?

EPA had issued a total of 8 permits. Authorized states have issued a total of 9. The breakdown by types is as follows:

	storage/treatment	incineration	land disposal
EPA	6	1	1
Authorized States	8	1	0
TOTAL	14	2	1

2. How long will it be before final permits for all facilities will be approved?

and

3. What are the Agency's priorities for reviewing permit applications?

Our initial priority scheme for calling in Part B applications paralleled the promulgation of our technical standards for hazardous waste management facilities. We began calling in Part B's for storage and treatment facilties in January 1982, for incineration facilities in August 1982, and for land disposal facilities in January 1983. The following is the status of permitting activites to date in EPA and authorized states.

	Estimated No. of Existing Facilities	Applications Called
Storage/Treatment	6,001	1,473
Incineration	315	115
Land Disposal	2,222	208
TOTALS	8,538	1,796

Land disposal facilities and incinerators are the highest priority over the next few years because of their potential threat to human health and the environment. We expect to complete call-ins for land disposal facilities and incinerators within 4 years. Once all call-ins for land disposal facilties and incinerators are complete, the focus will then shift back to storage and treatment facilities. Our latest estimates indicate it will take 1-3 years to process an application and issue (or deny) a permit for an existing facility. On this basis, we expect to complete the processing of all applications within the next eight years.

4. Would more resources speed up the process?

Additional staff would help speed up the process. However, there are limitations on our ability to expedite the process due to the complexity of the permit program and our ability to effectively handle a large number of applications at any one time. For example, we estimate it will take an average of two to three years to issue a permit for an existing land disposal facility from the time we call in the Part B application. This time frame is needed for the applicant to prepare and submit a complete application, for EPA to review the application for technical adequacy and to prepare a draft permit, for public review and comment on the draft permit, and for preparation and issuance of the final permit.

Further, the permitting of hazardous waste management facilities, particularly land disposal and incineration facilities requires staff with training and experience in hydrology, geology, chemistry, and other specialized technical areas to handle the broad range of technical permitting issues. In most cases, it takes a new employee 6 months to a year, or longer, to function at maximum effectiveness from the time they are hired into the permit program. An alternative approach for some relief of staff deficiencies in technical areas is hiring contractors or consultants with the technical skills that are needed. However, certain tasks, permitting decisions, and management activities cannot be assigned to contractors and, therefore, contracting is also limited in its effect.

LANDFILL BAN

1. If EPA had to provide a list immediately of specific wastes they will consider prohibiting from landfills, what would be the candidates on the list?

At this time, the Agency has only begun to study which wastes may be candidates for land disposal restrictions. In particular, EPA plans to develop a list of wastes ranked according to their intrinsic hazards. To do this, we will first designate screening criteria for toxicity, mobility, persistence, and bioaccumulation. These screening criteria will then be used to assess the hazards of all known constitutents of the listed wastes and selected characteristic wastes. Once these wastes are evaluated and ranked based on the screening criteria, we will identify a set of wastes that we will investigate as possible candidates for land disposal restrictions. This ranking scheme is expected to be available by this fall.

2. How quickly do you believe EPA could respond in making the determination to include the candidates on such a list in a landfill prohibition?

We expect to propose a short list of wastes which are candidates for land disposal restrictions by the summer of next year with another list of candidates by the end of next year (1984) or beginning of the following year (1985).

3. What are the constraints you see in reaching such a determination?

One of the primary constraints will be to develop the basis on which we will restrict wastes from landfills (i.e., should it be based on the availability of alternate treatment capacity, some type of risk analysis or both). Once this is resolved, we will still need to gather the information and apply it in order to determine which wastes should be restricted. In addition, another constraint will be defining and determining whether or not sufficient capacity is available for the alternate treatment technologies. In particular, in determining whether sufficient capacity exists, should measurements be made on a national basis or on a regional basis. For example, if treatment alternatives are available in one part of the country and wastes are generated in another, should EPA require these wastes to be transported long distances, thereby increasing the potential for spills, in order to prevent them from being disposed in or on the land?

LISTING WASTES

1. Is the Agency considering listing additional hazardous wastes?

Yes. The Agency has been investigating a number of different industry segments over the past several years. Within the organic chemical industry, this involves evaluating wastes from over 350 industrial product processes including approximately 200 pesticides, 60 synthetic organic chemicals and 100 dye and pigment processes. Over 400 questionnaires and 60 site visits have been completed and the data are being compiled and analyzed. Based on these studies, we expect that many additional wastes will be added to the list.

2. If the Agency had to list additional wastes within two years and five years, what wastes would be included for consideration?

We expect to make a decision on listing the following wastes over the next three years:

- Generic Listing for chlorinated aliphatic production residuals	8/83
- Dioxin-containing wastes	1/84
- Wastes from production of organobromine	8/85
- Wastes from production of carbamates	9/85
- Wastes from toluene diisocyanate production	2/85
- Wastes from dimethyl hydrazine production	5/85
- Solvent listings	11/85
- Wastes from coke-by-product facilities	7/85
- Wastes from spent lithium batteries	6/85

3. What does the Agency do to reach conclusions about listing wastes as hazardous?

In evaluating a waste to determine if it should be listed as hazardous, the Agency considers the factors outlined in 40 CFR §261.11(a)(3) (*i.e.*, nature of toxicity, concentration of toxic contaminants, persistence and potential to bioaccumulate of toxic contaminants, etc.). After considering these factors, the Agency would propose to list those wastes that have the potential to present a substantial hazard to human health and the environment, if improperly managed.

[illegible] Questions

1. In closing out the small quantity generator exemption, I do not believe we should substitute a new quantitative exemption. In particular, a level such as 100 kilograms, or 220 pounds per month of hazardous waste, is far too high. There may be some "de minimis" level, around 5 or 10 or 20 kilograms, which is an appropriate threshhold for requiring notice.

   Could you establish a number for such a "de minimis" level quickly by regulation, or would it be preferable to include it in the statute?

In our opinion, the appropriate level for requiring notice with off-site shipments of small quantity generator wastes and the appropriate level for imposing substantive regulations on small quantity generators will probably differ. We believe that any cut-off level should be based on the waste characteristics (e.g., toxicity and hazard etc.) and not on an arbitrary volume. We believe that the preferable approach to determining the appropriate cut-off level for the notice requirement is through formal rulemaking. This would give us the opportunity to analyze and solicit comments on several different options. However, formal rulemaking for the notice requirement alone will probably take two years to complete.

If, in the interest of expeditious implementation, the notice requirement is applied statutorily, then we believe the cut-off level should be no less than 100 kilograms per month, leaving EPA the discretion to lower the level for certain types of wastes if deemed necessary to protect human health and the environment. If the notice level is set below 100 kilograms per month, hundreds of thousands of additional generators will be affected, many of which are likely to be very small businesses, which may even include high school chemistry labs. Because of the number and nature of such generators, effective enforcement will be virtually impossible.

If the notice requirement is implemented statutorily, we prefer the use of a uniform notice like the proposed Uniform National Hazardous Waste Manifest form. The advantages to the use of a system like the Uniform National Manifest are that: (1) the provision can be drafted legislatively as a straightforward requirement and, thus, sucessfully implemented without regulations, and (2) this approach complements the existing DOT/EPA manifest system applicable to larger generators. In order to provide sufficient time to educate small quantity generators as to their responsibilities under RCRA, we believe that an effective date for a statutorily implemented notice requirement of at least six months after enactment is appropriate.

The appropriate cut-off levels for substantive requirements will likely vary depending on the type of waste generated. In our opinion, EPA should be given discretion to set these levels through formal rulemaking after completion of our small quantity generator study.

2. Even with the phaseout of the small quantity generator exemption, sizable amounts of hazardous materials in household wastes are disposed of in municipal landfills. A new small quantity exemption may increase this occurrence as well as illegal dumping of hazardous wastes in municipal landfills. Current criteria for sanitary landfills are inadequate to deal with these facts.

   It would be desirable to require an up-grading of the regulatory criteria for sanitary landfills under Subtitle D, and to provide for better implementation of the open-dumping ban and the up-graded criteria to meet this toxic threat.

   Please comment on these points and include any recommendations you have on this subject .

We are currently in the process of reassessing the need for additional solid waste requirements given the fact that we are still developing and implementing hazardous waste requirements. We would like to keep open the option of upgrading the criteria for Subtitle D facilities and then allowing at least some types of hazardous waste from small quantity generators to be sent to these up-graded facilities.

3. It has been suggested that the land disposal prohibition language in S. 757 be modified to provide more flexibility to EPA to administer. One suggestion is to ban such disposal of waste with concentrations of highly toxic or mobile constituents if it cannot be shown that the land disposal method in question will guarantee no migration of those constituents from the site for 1,000 years.

   Please comment on this approach and respond to whether it would, in fact, provide additional flexibility to administer.

Decisions on whether to prohibit wastes from land disposal will require an assessment of the effectiveness of the various land disposal technologies to contain hazardous constituents. This assessment will involve resolution of a variety of major policy issues, including the time frame appropriate for measuring the effectiveness of land disposal technologies. The approach approach you suggest in your question does provide the Agency with an explicit time frame and thus help to resolve one of these policy issues. We are concerned with the phrase "guarantee no migration" in the standard suggested in your question. A preferable substitute would be "reasonable assurance of no migration of hazardous constituents."

4. You have described a series of proposed or considered regulatory changes which closely parallel the requirements of S. 757. However, these administrative changes were not under way in early March when the bill was introduced. I believe it is important to incorporate these changes into the law, to assist you and the Agency in following through on the things you intend to do. What is your view on receiving a statutory mandate of this kind?

Areas in which we now have regulatory initiatives under way which closely parallel the requirements of S. 757 include: small quantity generators; land disposal restrictions; burning and blending of waste-derived fuels; and listing and delisting. In each of these areas, we believe that we currently have the statutory authority to promulgate a complete regulatory program. Therefore, we do not believe an additional statutory mandate is necessary. If statutory mandates are imposed in these areas they should provide: (1) reasonable deadlines considering the complexity of the issues and the time required to go through formal rulemaking in accordance with the Administrative Procedures Act and (2) sufficient discretion for EPA, within reasonable statutory guidelines, to determine the best regulatory approach.

5. It is my understanding that there is now no general ban on using waste oil containing poisons like dioxin for dust suppression, such as happened at Times Beach. Wouldn't a ban of this kind be a good idea?

We strongly agree that such a ban on the use of dioxin-contaminated waste oil (or other contaminated waste oil) as a dust suppressant is appropriate. On April 4, 1983, we proposed a definition of solid waste addressing those situations in which the reuse and recycling of hazardous wastes will be regulated under Subtitle C of RCRA. Also on that date, we proposed to list dioxin-containing wastes as acutely hazardous. These two proposals, when promulgated as final regulations, will ban the use of dioxin-contaminated wastes as dust suppressants. Therefore, any amendment banning the use of dioxin-contaminated waste as a dust suppressant is not necessary at this time.

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
WASHINGTON, D.C. 20460

JUL 15 1983

OFFICE OF
SOLID WASTE AND EMERGENCY RESP

Honorable John H. Chafee
Chairman, Subcommittee on Environmental Pollution
Committee on Environment and Public Works
United States Senate
Washington, D.C. 20510

Dear Mr. Chairman:

The enclosure to this letter is provided in response to your June 9, 1983, request for information following the RCRA reauthorization hearings on June 8 and 9, 1983. A response to some of the questions asked in your letter was provided on June 22, 1983. The Department of Justice responded to one question on Federal facilities and the questions concerning the citizen suit provision.

This completes EPA's response to your questions following the RCRA hearing. If I can be of further help during the RCRA reauthorization process, please let me know.

Sincerely yours,

Lee Thomas

Lee M. Thomas
Assistant Administrator

Enclosure

ENCLOSURE

FEDERAL FACILITIES

3. Can EPA or authorized states go in to inspect hazardous waste facilities at Federal operations?

Yes, EPA has this authority under §3007 of RCRA and Section 1-302 of Executive Order 12088. Authorized states have this authority under state law.

5. How successful have EPA and authorized states been in enforcing compliance with RCRA regulations at Federal facilities. (DOJ is answering the second half of this question.)

EPA and the states have conducted a total of 164 inspections at Federal facilities in FY 1983. Following these inspections, EPA took 38 actions to assure compliance.

6. Would EPA favor instituting a mandatory inspection program by EPA or authorized states for Federal facilities?

No, RCRA and Executive Order 12088 give EPA adequate authority to conduct such reviews and inspections as are necessary to monitor federal facilities compliance. EPA feels that a mandatory inspection program would impair EPA's ability to make effective use of its resources by limiting the Agency's discretion to target facilities with a greater potential for causing environmental harm more frequently than other facilities. Currently, the Agency's inspection strategy provides for annual inspections of 100% of all "major"1/ TSD facilities and 25% of all non-major facilities. Authorized States are required to follow this strategy as a condition of receiving a cooperative enforcement grant for FY 1984. Under this strategy, the basis for targetting Federal facilities for inspection is the same as that used to target non-Federal facilities.

8. How aggressive has EPA been in seeking information and compliance for Federal facilities?

There are two sources of information on federal facilities' compliance: 1) reports of EPA and State compliance monitoring activities and 2) reports submitted by Federal agencies pursuant to RCRA and Executive Order 12088. EPA's Hazardous Waste Management Data System (HWMDS) is used to record reports of EPA and State compliance monitoring activities. The Agency is planning to compare the data on compliance rates of Federal facilities with that of the rest of the regulated community to update its strategy for assuring the compliance of federal facilities. EPA has been as agressive in monitoring for compliance at Federal facilities as at other RCRA regulated facilities. Where violations have been found at Federal facilities, those facilities have been notified of the compliance problems and advised to take corrective actions as expeditiously as possible.

1/ Generally, all land disposal facilities, all incinerators, all facilities subject to ground water monitoring requirements, and those storage and treatment facilities with the greatest potential for causing environmental harm are included in the definition of "major".

Department of Justice

TESTIMONY

CAROL E. DINKINS
ASSISTANT ATTORNEY GENERAL

LAND AND NATURAL RESOURCES DIVISION

DEPARTMENT OF JUSTICE

ON

S.757

SOLID WASTE DISPOSAL ACT AMENDMENTS OF 1983

SUBCOMMITTEE ON ENVIRONMENTAL POLLUTION

OF

THE SENATE COMMITTEE ON ENVIRONMENT AND PUBLIC WORKS

June 8, 1983

I am very pleased to testify today on the Solid Waste Disposal Act Amendments of 1983, amendments to the primary federal regulatory statute controlling the transportation, recycling, and ultimate disposition of solid and hazardous wastes. Effective management of such wastes is a top environmental priority of the Administration, and effective enforcement of federal hazardous waste statutes is the highest priority of the Justice Department's Land and Natural Resources Division and of the Enforcement Counsel's Office at the Environmental Protection Agency. I am also pleased to address amendments to the Act contained in H.R. 2867, presently being reviewed by the House Judiciary Committee.

The Solid Waste Disposal Act was first amended to address seriously the problems associated with hazardous waste in October, 1976. Since that time, our nation has begun to realize the great scope and complexity of the dangers to public health and environmental quality created by past, inadequate management of the by-products of our industrial development. We have also become keenly aware of the need to assure that future handling, recycling and disposal of such wastes is undertaken in the most prudent manner possible.

The Solid Waste Disposal Act was again amended in 1978 and 1980 to meet better these national concerns. Of course, in 1980 Congress also enacted the Comprehensive Environmental Response, Compensation, and Liability Act of 1980, commonly known as "Superfund," thereby establishing a means by which the federal government and states may quickly, cooperatively and affirmatively respond to the threat posed by dangerous sites and releases -- especially those caused prior to enactment of a comprehensive regulatory program. These increasingly sophisticated legislative responses to the dangers of hazardous waste pollution are yielding more and more positive and concrete results each year. This strong medicine has been administered in a bipartisan spirit, and is benefiting all Americans.

Environmental enforcement litigation has been very productive in the last year -- both in civil enforcement and particularly in criminal enforcement, where the Department's new criminal enforcement unit has already obtained several convictions in major cases.

By all measurements, the Land and Natural Resources Division continues to increase enforcement of the criminal laws against those who willfully or knowingly violate the environmental laws. The number of cases being actively investigated and indicted by grand juries has already surpassed the totals for all of last year. More cases involving more defendants have been successfully prosecuted than ever before and the number of cases referred to the Department for criminal prosecution has nearly doubled over the output of last year.

This increased emphasis in criminal enforcement of environmental laws is attributable to the investments made both at EPA and the Department in manpower and finances. The number of cases referred from EPA and the quality of those referrals is directly related to the hiring of experienced criminal investigators at EPA. The number of active cases under investigation at EPA from the beginning of the fiscal year to April of this year has risen to 154, or nearly twice the number during all of the previous fiscal year.

With the number of cases increasing, the number of cases prosecuted not only has increased, but the number of people prosecuted has similarly risen. This stems from our ability to more thoroughly investigate and prosecute the individuals who are accountable for the criminal activity rather than limit our focus to corporate liability. Seven cases have been successfully prosecuted thus far this fiscal year compared to the same number for all of the previous year. Nineteen individuals and corporations have been convicted compared to eleven for all the previous years. These numbers reflect the greater participation by prosecutors from the Lands Division who are assigned to the Environmental Crimes Unit and who have both criminal and environmental experience. Where they are involved, more statutes are utilized, including the traditional Title 18 offenses such as conspiracy, 18 U.S.C. §341, mail fraud, 18 U.S.C. §1341 and false statements, 18 U.S.C. §1001, as well as the environmental statutes, and more defendants per case are indicted.

In addition, we have been successful in expanding the historical emphasis on violations of the Clean Water Act to focus on the illegal handling of hazardous and toxic wastes. Approximately 65 percent of the current docket now involves hazardous or toxic wastes. On April 29, 1983, four officers of the A.C. Lawrence Leather Company, Inc. and the company itself were sentenced for numerous violations of the Resource Conservation and Recovery Act and other federal criminal statutes. Fines and restitution totaling $475,920 -- the largest ever in the District of New Hampshire -- were ordered, and the individual officers each received suspended prison terms of one year, two years of probation, 200 hours of voluntary community service, and fines of between $5,000 and $27,500.

Civil hazardous waste enforcement has also met with impressive success over the last year. Trial of the Hardage case resulted in some very favorable findings of liability and law. Other opinions have resulted in significant new gains in legal precedent. Between March 15th of last year and March 15th of this year, the EPA and Department of Justice entered into 17 settlements involving dangerous hazardous waste sites -- requiring an estimated 115 million dollars in remedial expenditures. Of course, settlements are only entered into where they will fully serve the public interest. In recent months, the pace of filings, negotiations and trial preparation has accelerated. We have recently added substantially to staff in this area, and we are confident that, working with Administrator Ruckelshaus and the new EPA management group, the coming months and years will increase results achieved through vigorous enforcement.

I will generally focus my comments on those provisions of the bills which bear directly on our enforcement responsibilities.

S.757 - REVIEW ON APPEAL UNDER SECTION 7006

Only Section 11 of S.757 relates directly to the work of the Lands Division. This section is a complete substitute for the existing Section 7006 of the Act, which provides for judicial review of various regulatory and administrative acts and decisions of the EPA. Section 7006(a) now provides for review of final regulations or a denial by the Administrator of any petition for the promulgation, amendment, or repeal of a regulation under the Act, only in the United States Court of Appeals for the District of Columbia. Section 11 of the bill would allow such petitions for review to be heard in that Circuit or any other Circuit in which the petitioner resides or transacts business.

We commend this amendment, which is consistent with the Administration's commitment to making the regulated public's access to the courts more convenient. The amendment is very similar to the general provisions of S. 2419, the Venue Bill, which the Administration supported through my testimony before the Subcommittee on Courts of the Senate Judiciary Committee on May 13, 1982. The proposed mechanism for random selection of a reviewing Circuit in the event that petitions are filed in more than one Circuit within thirty days of one another, is also substantially similar to the mechanism provided for in S. 2419, and would assure a fair and workable means of consolidating review of related petitions. Although review outside the District of Columbia may occasionally result in conflicting opinions concerning standards and procedures of review, the benefits to be derived from a more accessible and pluralistic judicial process far outweigh such minor inconveniences.

The one difficulty we see with Section 11 arises out of a change in Section 7006(b) of the Act, which currently provides for review of the Administrator's issuance, modification, revocation, or denial of permits under Sections 3005 and 3006 of the Act in the United States Court of Appeals for the Circuit in which the petitioner resides or "transacts such business." Section 11 would amend this provision to allow for review in any Circuit in which the petition resides or "transacts business," whether or not that business is the subject of the permit in dispute. In the Department's view, this revision will unnecessarily broaden venue selection and invite forum shopping. This change is not conducive to more localized participation in the governmental process, nor would it meet any genuine need of a petitioner for convenience of forum. It would tend to benefit only petitioners which coincidentally conduct business in a variety of locations. We believe the existing language of this portion of Section 7006(b), which allows a petition, related to a permit decision, only in the Circuit of residence or in which the facility which is the subject of the permit is located, should remain unchanged.

H.R. 2867 GENERALLY

H.R. 2867 proposes, in Section 11, a number of significant changes in the conduct of civil litigation under the Act. Though we support portions of Section 11, some portions are in my view unnecessary or would seriously interfere with effective civil and criminal enforcement. The Act, when considered jointly with other environmental statutes (particularly CERCLA), already provides the federal government with the tools it needs to effectively protect public health and the environment from the dangers of hazardous waste contamination. Before significant changes or new remedies are introduced, a demonstrated need for such modifications should exist.

LITIGATION AUTHORITY

The most troubling and unacceptable provision of the bill is Section 11(d), which would cause "exclusive authority" to "commence and conduct" civil litigation under RCRA to pass to the Administrator of the EPA in the event that the Attorney General does not notify the Administrator within 30 days of transmittal of a civil referral that an action will be commenced in his behalf, or if the action is not commenced within 150 days of transmittal. This imposition of rigid statutory deadlines on the initiation of litigation by the Department of Justice is unwarranted, arbitrary and could result in significant interference with the effective conduct of both civil and criminal litigation under the Act. It was not sought by, nor is it supported by the Administration, the Department or EPA, and it should not become law. Administrator Ruckelshaus testified at his confirmation hearings that he believes strongly that litigation authority should be centralized at the Department of Justice -- that "for purposes of orderly administration of justice, there has to be someplace where you lodge that final authority." I agree with his statement.

The merits of centralizing litigation authority in the Attorney General are well established as a matter of law and policy. See 28 U.S.C. 516 and 519. As the number of federal agencies, the complexities of statutes under which the United

States sues and is sued, and the number of actions to which we are a party have increased, the advantages of centralized litigation have also increased. The Attorney General's role in providing neutral, dispassionate analysis of and advice concerning controversial issues cannot be overstated. This role has historically proved to be of great value to the fair, vigorous enforcement of the nation's laws. Only unitary litigation authority can insure that consistent positions are asserted by the United States when disputes arise regarding the proper interpretation of the Constitution, specific statutes and the Federal Rules of Civil Procedure and Evidence. The development of law through judicial decisions favorable to the United States in the Supreme Court is advanced significantly by the Attorney General's involvement in and management of litigation in the District Courts and Courts of Appeal. For example, civil environmental enforcement involves not only questions of the application of the individual Acts, but also frequently includes consideration of the commerce and general welfare clauses of the Constitution, as well as difficult issues of attorney-client privilege, the work-product exclusion, availability of experts during discovery, prosecutorial discretion, intervention, failure to join indispensable parties, and many other legal and procedural issues which have a direct bearing on all federal regulatory programs and agencies.

While certain statutes have created exceptions to the rule of consolidated litigation, these statutes generally involve independent regulatory agencies such as the SEC, very limited authority (such as enforcement of FTC subpoenas), or coequal, elective authority to initiate actions if the Department of Justice does not affirm its willingness to bring a civil action within a "reasonable time" (the Clean Air Act, Clean Water Act, and Safe Drinking Water Act contain such limited provisions). Where partial divisions of litigation authority have been provided for by statute, unfortunate confusion and occasional conflicts have resulted. See Federal Trade Commission v. Guignon, 390 F.2d 323 (8th Cir. 1969), involving confusion over authority of the Federal Trade Commission to litigate subpoena enforcement under a provision which has been subsequently repealed, and Lowell Sun Co. v. Fleming, 129 F.2d 213 (1st Cir. 1941), involving conduct of litigation under the Fair Labor Standards Act of 1938. None of these statutes provides for an irrevocable shift in litigation authority if a fixed filing deadline is not met.

Deadlines are Unnecessary

The deadlines contained in Section 11(d) are unwarranted. No other law enforcement scheme of which I am aware contains this sort of rigid and extraordinary limitation on the Executive Branch's discretion and responsibility. The Department of Justice has earned an excellent reputation for the timely and effective prosecution of RCRA referrals. With the EPA's assistance, we have developed a well-qualified staff of trial attorneys to handle this litigation. Of 72 RCRA referrals received, the Department filed 64 as of June, 1983. The EPA has withdrawn five cases, and we are currently discussing with the Agency the withdrawal of three more.

Impressive results have been obtained in those cases which have been filed -- many of which have resulted in early, favorable settlements providing for comprehensive site cleanups. In several cases, defendants have reluctantly concluded, following extensive discovery, that settlement was their only reasonable alternative. Our successes have, at times, preceded and given direction to the development of important legislation, such as CERCLA and the October, 1980 amendments to RCRA.

Only one example of alleged unreasonable delay in prosecution of an EPA referral has been offered by the proponents of Section 11(d). Ironically, that case was referred to the Department for prosecution under Section 106(a) of CERCLA, which is not affected by the bill. On September 30, 1982, the EPA referred the "Mountain View" case, involving asbestos contamination in Globe, Arizona. This case, like the vast majority of hazardous waste cases, was referred pursuant to an "imminent and substantial endangerment" finding by the Administrator. Although I wish to avoid a more detailed discussion of this case, which is in litigation, the case referral as transmitted, left some important factual, legal policy, and remedial questions unresolved. Over the succeeding months, and while the EPA underwent a major Congressional investigation and major changes in staff -- particularly in those positions relating to hazardous waste policy and enforcement -- the Department worked with the EPA to resolve those questions. On May 13, 1983, suit was filed in the United States District Court in Arizona.

At a recent hearing before Representative Dingell's Oversight and Investigations Subcommittee, an EPA official testified that the only reason he could give for the delay was the competing demands for time of the Department attorney assigned to the matter, who is also assigned to the "Stringfellow" case. However, no spokesman for either the EPA's Office of Enforcement Counsel or the Department of Justice was invited to the hearing to explain the delay. The facts, had they been known, would have shown that the Department attorney's workload was only one relatively minor factor in the delay, which primarily resulted from the need to answer significant unresolved questions of fact, policy and remedies. The unfortunate, unique and brief delay which was experienced in the filing of the Mountain View case is not likely to recur, did not adversely affect our legal position, is in stark contrast to the prompt action which hazardous waste cases typically receive, and should not be accepted as a rationale for imposing an arbitrary and unreasonable statutory limitation on the Department's civil litigation duties.

Section 11(d) is Unworkable

The deadlines contained in Section 11(d) are unrealistic. Hazardous waste cases are some of the most complex and difficult cases litigated by the United States -- often involving dozens or even hundreds of potential defendants, and numerous, related claims for injunctive and monetary relief. In some cases, questions concerning these issues remain to be answered at the time the EPA transmits a formal referral to the Department. Section 11(d) would require the Department to choose between making hasty prosecutorial decisions without adequate factual and policy underpinnings, and being automatically stripped of the ability to represent the government in litigation should it resist the pressure to act precipitously which this amendment would impose. Neither the public nor the environment is well-served by such an approach.

It is the rule rather than the exception that changing facts and circumstances require continuing analysis of the prosecutive merit of and approach to a case up to the time a complaint is filed. It is not uncommon for decisions about the availability and commitment of critical EPA technical support to take longer than the time allowed by the proposed filing deadline. The filing of a complaint is commonly preceded by many months of EPA investigative work relating to liable parties, evidence of the endangerments presented by a site, and the relief which is most appropriate to pursue. Where injunctive relief is sought, EPA or outside experts may be consulted prior to filing of the complaint, to assure that it is factually accurate, that preliminary injunction motions are well-supported, and that the prayer for relief is geared to protect public health or the environment in the most effective way. These challenges are often greatest in the most important and complex cases -- some of which have required more than 150 days of additional preparation after the receipt of an EPA referral.

Similarly, difficult legal issues must be addressed. Many of these cases involve multiple claims under CERCLA, RCRA, the Safe Drinking Water Act, the Clean Water Act, the River and Harbor Act, the Clean Air Act, and the Toxic Substances Control Act. Some RCRA actions have involved well over one hundred potential defendants, often having varying liability under given

Acts. If our prosecutors are held to the filing deadline imposed in Section 11(d), the more substantial and complex the case, the less considered our legal judgments will necessarily become. Indeed, any deadlines would be arbitrary and could result in interference with the fair and deliberate consideration of a case. The filing deadline contained in Section 11(d) is unreasonable on its face.

Deadlines May Impact Criminal Enforcement

The dangers of these deadlines are numerous. They could interfere with parallel criminal proceedings under RCRA and related Acts, since the Department could be forced to choose between initiating a civil action while a criminal investigation or prosecution is proceeding, and waiting on the civil action and losing its authority to prosecute civil claims. We have little control over timing in the investigation and prosecution of criminal cases, which may take more than a year from the presentation of an indictment to the obtaining of a conviction, and which generally should not be threatened by a simultaneous civil suit.

Section 11(d) May Harm Justice/EPA Relationship

An additional result of this proposal, intended or not, will be to foster an unhealthy and unseemly competition between the Department and its client agency. At a time when emphasis should be on establishing a cohesive, supportive enforcement mechanism, this proposal may well have the opposite effect. The Department and the Agency have worked very hard and successfully to improve relations and smooth inevitable institutional differences. This statutory proposal is not consistent with those efforts. Even if it is assumed that more reasonable and flexible deadlines could be established and qualified, a potential for division of civil litigation authority could still result in substantial harm to what is now a very effective program. Care has been taken to forge an effective working relationship, which benefits from clearly defined and complementary roles and responsibilities.

Comparisons to "Reasonable Time" Provisions Are Inappropriate

The "reasonable time" provisions of the Clean Air Act, Clean Water Act and the Safe Drinking Water Act are not comparable to Section 11(d). First, those provisions do not set rigid filing deadlines or result in an automatic transfer of litigation authority. Second, actions under those Acts typically involve operation of a facility without a permit, discharges in violation of a permit, or pollution in excess of amounts or levels established by regulations. Though a few RCRA referrals have included such questions, the vast majority of claims involve complex factual and technical issues which form a basis for injunctive relief under an "imminent and substantial endangerment" standard. Third, actions under other statutes usually involve a single, discernable defendant (frequently identified through self-reported violations). RCRA actions usually involve multiple defendants, who have not self-reported and who have not cooperated in an investigation of their role as a responsible party. Thus, "reasonable time" is virtually impossible to define in the context of RCRA because of dramatically variable fact situations. In any event, the 150-day litigation provision contained in the

Memorandum of Understanding (MOU) between the Department and the EPA which applies to the "reasonable time" statutes, but not to hazardous waste cases, does not automatically and irrevocably shift litigation authority. Incidentally, I am not aware of a single action which has been prosecuted by the EPA through the invocation of the 150-day provision in cases covered by the MOU.

Section 11(d) Would Fragment Litigation Responsibilities

Apparently realizing that Section 11(d) should be construed to avoid its express inflexibility, which provides that the "Administrator shall . . . have the exclusive authority to commence and conduct the litigation" if a deadline is not met, the Energy and Commerce Committee Report on H.R. 2867, at page 49, says that the provision "is not intended to . . . preclude the involvement or support of United States Attorneys or the Justice Department in cases handled by the Administrator." I am concerned that the rigid language of the Section will not be construed to allow this more reasoned relationship. United States Attorneys, who are not directed or supervised by the Agency, would also be lost as a valuable litigation resource in RCRA cases. With that result, the provision makes little sense and can produce substantial harm.

One of the most insoluble and serious harms created by the splintering of some small portion of RCRA litigation authority from all other civil environmental litigation arises from the fact that the vast majority of RCRA actions have involved and probably will continue to involve closely related but distinct claims under other Acts. The most common examples are cases utilizing the "imminent endangerment" provisions of RCRA Section 7003, CERCLA Section 106(a), Safe Drinking Water Act Section 1431, and Clean Water Act Section 504. The necessity for frequent joint use of these statutory claims is acknowledged in Section 106(c) of CERCLA, 42 U.S.C. §9606(c), which mandates the publication of EPA guidance for the coordinated use of these and other provisions of law. That guidance, since published by the EPA at 47 Fed. Reg. 20664 et seq., recognizes the importance of flexible, coordinated application of these authorities. Since Section 11(d) of H.R. 2867 only provides for possible transfer of RCRA litigation authority, affected RCRA claims would have to be brought independently by the EPA, or consolidated with a related action which would continue to be prosecuted by the Department of Justice -- yielding obviously wasteful and undesirable results in either situation. The United States should not employ duplicative litigation resources in the same case.

Similarly, the United States should not develop and maintain two duplicative trial groups. It will inevitably take time for the Agency to develop its own litigating capability and staff to handle trial work. Developing such a capability not only involves a duplication of litigation resources in the EPA and the Department of Justice, but also will divert scarce resources from the important task of developing hazardous waste cases quickly. Absent a clear demonstration of need, such duplication is manifestly unwise.

The only solution to this problem suggested by the Energy and Commerce Committee, at page 51 of its Report on the bill, is that the Department abdicate its authority to prosecute claims under the Clean Water Act, Clean Air Act, and the Safe Drinking Water Act, whether or not it has failed to confirm that it will prosecute them within a "reasonable time." This suggestion is not only offensive but impractical, since it would invite challenges to the standing of the EPA to litigate such claims and, more important, ignores the fact that such a transfer of authority is not remotely contemplated or arguably allowed under CERCLA -- the statute most closely related to RCRA. RCRA Section 7003 claims are almost always brought in conjunction with one or more CERCLA claims.

CITIZEN SUIT AMENDMENTS

The Department of Justice is also opposed to the enactment of Section 11(f) of H.R. 2867, which expands the citizen suit provision of the Act to allow any person or state to initiate an action equivalent to suits now exclusively reserved to the United States under Section 7003 -- "imminent and substantial endangerment" injunctive relief actions -- unless such an action has been commenced and is being "diligently prosecuted" by the United States or, if not by the United States, by a State. Several problems are presented by this flawed amendment. First, it is counterproductive to the ends which it and the Act generally seek to achieve, and will hamper federal enforcement without offering palpable benefits.

One inevitable result of the expanded citizen suit provisions in the proposed bill is the encouragement of additional federal court litigation. Inasmuch as the need for such additional litigation has not been demonstrated, the results in our view will be increased burdens on the judicial system and a hampering of our enforcement efforts.

RCRA already contains significant citizen suit provisions parallel to those in other environmental laws. Section 7003 provides special and critically important authority to the federal government to seek broad relief in situations presenting an "imminent and substantial endangerment." Because the legal scope of this provision has not yet been fully established and is being fashioned upon very broad and general statutory language, it is extremely important for the Department of Justice, with its government-wide enforcement perspective, to choose cases and to fashion litigation strategy which will ensure the best possible judicial construction of Section 7003. The government also has the technical and scientific resources to develop these cases most effectively and in a way most consistent with the public interest. Citizens now have available recourse to state court and in those situations where state remedies or other statutory remedies are inadequate can sue to compel the federal government to act in these cases. This additional citizen's litigation authority would be both costly and unnecessary, and could jeopardize the careful development of precedent which we seek to achieve.

The vast majority of existing actions under Section 7003 are highly meritorious and usually, through settlement, result in a comprehensive remedial program. Frequently, and especially in the most serious and substantial cases, such settlements are arrived at after months of careful investigation and scientific study by both the United States and the defendants, and involve expensive and complex, long-term commitments. Most important, these settlements are particularly dependent upon some finality of judgment, if defendants and the United States are to be convinced that their agreement will satisfy the court and the public and meet remedial needs, absent additional unforeseen complications. States, individuals and civic organizations which must, should or wish to become involved in the litigation or settlement process now can be included through mandatory or permissive joinder or intervention pursuant to Rules 19(a), 20(a), and 24 of the Federal Rules of Civil Procedure, or through the public comment process provided for at 28 C.F.R. §50.7, which precedes entry of all remedial consent decrees. The potential for use by states or citizens of the proposed right to bring a subsequent action, under virtually identical standards, will have a chilling effect on the willingness of defendants to enter into settlements with the United States, and could disrupt or delay implementation of remedies.

Several problems are presented by the addition of a loosely worded citizen suit provision. It would occasion the use of the provision as a vehicle for the airing of actions brought mainly for recovery of damages on pendent claims in the federal courts, which are already severely tested by a growing case load, the use of the federal courts as an alternative to state courts by states and citizens wishing to judicially regulate past hazardous waste disposal in another forum or obtain attorneys' fees not available elsewhere, and by the possibility that citizens whose primary interest is damage recovery will not capably and vigorously assert their more difficult injunctive claims at trial -- thereby inviting adverse or confusing judgments which could harm federal enforcement efforts.

FEDERAL COMMON LAW

Section 11(c) of the bill attempts to preserve all statutory and common law claims of citizens, regardless of the comprehensive nature of RCRA and CERCLA. The rationale for this change is that some rights might otherwise be lost by reason of the Supreme Court's opinion in City of Milwaukee v. Illinois, 451 U.S. 304 (1981) (Milwaukee II). When existing remedies available at state common law and through RCRA, CERCLA and other federal laws are examined in light of the Supreme Court's opinion, it is not clear whether there is a remaining, viable federal common law to be preserved. It is that uncertainty which provides the foundation of our concerns about this provision.

We assume that this savings provision was prompted by a desire on the part of the drafters to provide for more potential causes of action in this important enforcement area. Hazardous waste cases are my Division's top priority, and I think that we have demonstrated the commitment in enforcement to use every enforcement tool reasonably available to us. However, from the perspectives of both effective enforcement and the sound administration of justice, it is preferable that Congress provide such tools expressly in the statute.

As the Supreme Court has articulated in both Erie Railroad v. Tompkins and Milwaukee II, there is no general federal common law and, with only narrow exceptions, the Constitution directs courts to look to state law or federal statutes to discern legal standards. The Attorney General has said on several occasions that leaving to the federal courts -- rather than to the elected branches of government -- the authority, without any statutory guidance, to write substantive rules of behavior and liability, is not only a misallocation of responsibility in our constitutional system, but also encourages litigation and leads to uncertainty and unpredictability in important areas of the law. Most importantly, when Congress relies on a nebulous federal common law, we who enforce the law will have less confidence about what tools truly are available to us.

The savings provision proposed here poses more questions than it answers, because, while we are studying the matter, we are not aware of any federal common law nuisance or related actions that might exist in hazardous waste matters, where the statutes and state law -- because these cases are more intrastate in character -- appear to provide the necessary tools. As I have said previously, we are enthusiastic about the current broad authority conferred by existing provisions of RCRA and CERCLA to address ongoing threats posed by hazardous waste disposal. Should we become aware of a need for additional authority, it is our belief that the better alternative is to have Congress address that need in the statute.

In sum, while it is one thing for Congress to make clear that state law and federal statutory rights are preserved, we feel strongly that any reliance upon federal common law to fill statutory gaps, as is the apparent intent of Section 11(c), would be misplaced. If the drafters have certain desirable federal common law rules in mind in creating this clause, it would be preferable to write those rules expressly into the statute. Similarly, if it is felt that statutory coverage may indeed be inadequate in any important area, then we urge Congress to act swiftly and effectively to aid the prosecution of hazardous waste cases, and you can be sure that we are committed to enforcement and will use whatever tools are necessary and available to carry out the will of Congress. I think that the uncertainty caused by reliance upon an indeterminate body of federal common law is undesirable, irrespective of one's view of substantive enforcement and regulatory policy. Whatever the substantive rules are, and no matter how tough they are, those rules should not be initiated by federal courts. Rather, in our system of separated powers, it is the wiser course that at the outset they be studied, debated and written by the Legislative and Executive Branches.

SECTION 7003 CLARIFICATION

Next, I would like to comment on amendments to Section 7003 which are contained in Section 11(a) of H.R. 2867. The section presently authorizes the EPA "upon receipt of evidence that the handling, storage, treatment, transportation or disposal of any solid waste or hazardous waste may present an imminent and substantial endangerment to health or the environment" to request the initiation of a suit "to immediately restrain any person contributing to such handling, storage, treatment, transportation or disposal or to take such other action as may be necessary." 42 U.S.C. §6973(a). Though the issue of inactive waste sites is not addressed explicitly in Section 7003, the Congress, most courts and every administration which has administered the Act has construed the section to apply to such sites, regardless of whether the conduct which contributed to the present endangerment is ongoing. United States v. Solvents Recovery Service, 496 F.Supp. 1127 (D. Conn. 1980), United States v. Reilly Tar and Chemical Corp., 546 F.Supp. 1100 (D. Minn. 1982), United States v. Diamond Shamrock Corp., No. C80-18157 (N.D. Ohio May 29, 1981), and United States v. Price, 523 F.Supp. 1055, aff'd, 688 F.2d 204 (3rd Cir. 1982). Two courts have rendered slightly varying rejections of the application of Section 7003 to closed or abandoned sites. Both cases are now on appeal, one to the Third, and one to the Fourth Circuit. In United States v. Wade, 546 F.Supp. 785 (E.D. Pa. 1982), the United States seeks abatement of health and safety threats posed by a hazardous waste dump closed in 1977. The district court granted a motion to dismiss the generators of the waste, concluding that there is no basis in the statute or legislative history to hold such off-site generators liable under Section 7003 or CERCLA Section 106. The decision, rendered immediately prior to the Third Circuit's opinion in United States v. Price, is in conflict with the Circuit's views, and we believe that it will be overturned. In United States v. Waste Industries, Inc., No. 80-04-CIV-7 (E.D.N.C.

January 3, 1983), the district court dismissed a Section 7003 action based on health and environmental dangers presented by ground-water contamination emanating from a landfill which, like the Wade site, was in operation after the enactment of RCRA. The court concluded that "continuing conduct" must be present for an action to lie under Section 7003. The opinion relied on the Wade opinion and was in direct conflict with an exhaustive, earlier opinion of a magistrate assigned to hear the same motions. We are hopeful that the opinion will be reversed as well.

In my view, the changes to Section 7003 contained in Section 11(a) of H.R. 2867 are helpful to clarify Congress' original intent. The changes, of course, should be carefully drafted and explained, in order to make it clear that they simply affirm that which is already provided for under existing law. If this Subcommittee believes that express clarification is desirable, the language contained in Section 11(a) and the explanation of that language contained in the Report of the Committee on Energy and Commerce would be suitable to achieve that purpose.

FIREARM AND ARREST AUTHORITY

H.R. 2867 also contains a number of additions and changes to criminal enforcement provisions of the Act. For example, Section 11(e) authorizes designated EPA criminal investigators to carry firearms, to execute and serve warrants and subpoenas, to make arrests, and to administer oaths for sworn statements. As I have indicated, the Land and Natural Resources Division actively supports and participates in the criminal enforcement program which has been established at EPA. On the specific question of giving firearms and arrest authority to EPA investigators, I believe that there is not sufficient information and history upon which to draw a reliable conclusion.

The need to carry guns and make arrests in the case of any federal official should be carefully weighed and all factors must be carefully considered. The Administration has received numerous requests to support similar grants of authority to other federal investigators. Specific evidence should convincingly demonstrate a bona fide need prior to granting such authority. In the case of EPA investigators, I believe our experience has been too brief and too limited to draw such a conclusion. If additional experience demonstrates that insufficient authority exists to carry out the EPA investigator's role, then I would support appropriate changes in their authority. The EPA criminal investigator's role in the total federal law enforcement program is new and developing. Because of the critical importance of this criminal investigative program, we will be observing carefully its results and pledge to work closely with EPA and the Congress in strengthening that program where the need is demonstrated.

AMENDMENTS TO CRIMINAL PROVISIONS

Section 11(h)(6) of H.R. 2867 broadens the application of criminal sanctions for violations of RCRA, including extension to those who knowingly cause wastes to be transported in violation of the Act, and makes appropriate increases in maximum sentences and penalties. These changes are advisable, and are consistent with our firm commitment to the use of criminal sanctions in environmental cases.

Finally, Section 11(h)(7) simplifies the "knowing endangerment" provisions contained in Section 3008(e) of the Act, and raises the maximum term of imprisonment for such violations to fifteen years. We have worked closely with the EPA in evaluating the need to simplify the language of Section 3008(e), so as to make proof clearer and more certain, while still requiring proof of appropriate levels of mental culpability and protecting the rights of the accused. We believe that the language proposed in Section 11(h)(7) of H.R. 2867 accomplishes these objectives, and that it would significantly increase the value of the provision, both as a deterrent and a means of punishing those who intentionally endanger the lives of others for profit.

CONCLUSION

In summary, with the one objection I have noted regarding a change in Section 7006(b), S.757 is the best bill by which to amend the Act. The Subcommittee may wish to consider supplementing S. 757 with provisions increasing criminal penalties, clarifying the "knowing endangerment" criminal provision of the Act, and clarifying the scope of Section 7003, as suggested in H.R. 2867. Our greatest concerns are with other enforcement and citizen suit provisions of H.R. 2867, which should be avoided as premature, unnecessary, and harmful to an effective program of protecting public health and the environment -- particularly those involving the imposition of deadlines on the exercise of the Department's civil litigation authority, and those expanding the citizen suit provisions contained in Section 7003 of the Act.

I hope my comments are helpful. I have not addressed all of the many changes in enforcement provisions contained in H.R. 2867, but have addressed those which are most important. I would be happy to answer any questions you may have.

U.S. Department of Justice
Land and Natural Resources Division

Office of the Assistant Attorney General
Washington, D.C. 20530

June 23, 1983

Honorable George J. Mitchell
United States Senate
Committee on Environment and
Public Works
Washington, D.C. 20510

Re: Follow-up Questions to Testimony of June 8, 1983.

Dear Senator Mitchell:

Thank you for your letter and questions of June 10, 1983. In the interest of time, my responses are based on currently available information. Before addressing your specific questions, however, this letter elaborates on my testimony for the record with regard to existing citizen's remedies and opportunities to participate in the federal enforcement process.

While we support the concept of citizen input and participation, we encourage the Congress to look carefully at the risks and burdens of broadly authorizing citizen enforcement in federal courts, and to address expressly whether the perceived need cannot be met through less burdensome means. We applaud the goal of providing appropriate access to the courts for aggrieved persons, but we believe that the broad citizen suit provisions in Section 11(f) of H.R. 2867, while well intentioned, will add a substantial burden to our federal court system and impede our federal enforcement program without filling a demonstrated need which cannot otherwise be satisfied.

Section 7003 is a special, broad substantive provision which presently permits the federal government to seek extraordinary relief if hazardous wastes may present an "imminent and substantial endangerment." RCRA Section 7002, which allows suits to compel compliance with permits, regulations and standards under the Act, is analogous to similar provisions in other environmental laws. However, we are aware of no environmental laws which permit citizen enforcement of "imminent danger" provisions, such as CERCLA Section 106, CWA Section 504, SDWA Section 1431, TOSCA Section 7, and CAA Section 303. There are sound reasons for this distinction. These "imminent danger" tools are designed to meet special situations not adequately addressed by other provisions, such as the permit and reporting requirements. The extraordinary, broad law enforcement powers they grant are traditionally and more appropriately invoked by a sovereign.

A grant of authority to individual citizens to initiate such actions would have harmful results. The rigid 60 day notice provision in Section 11(f) does not afford sufficient time to file a large, complex action, and may lead the government to file litigation with less than ideal preparation in order to retain control of the case. As I explained in my June 1983 letter to Senator Randolph, the United States is vigorously arguing for the broadest possible construction of Section 7003, and employing its broad litigation perspective and superior scientific and technical resources to achieve the best possible precedents. Our enforcement interests and the public interest may be impaired by any adverse precedents rendered in parallel citizen's actions.

Perhaps most significantly, if citizens are permitted to add state law claims to a broad federal statutory action based upon pendent jurisdiction, the added burden to our federal courts would be substantial. Pendent jurisdiction to join any state law claims related to an entire site would lead to federal court proceedings in which private state law claims may often be the primary motive for a suit -- a situation which will be exacerbated if attorneys fees are more liberally available in federal court. This result is particularly disturbing for two reasons. First, it is not necessary. Damages actions are necessarily matters which can, and indeed normally should be heard in state court. Thus, opening federal courts to these claims and state law injunctive claims is not needed -- a forum is already available. Second, these claims may encumber important federal hazardous waste enforcement proceedings. Section 7003 was designed to be a streamlined, powerful tool for enjoining and abating threats posed by dangerous sites. Addition of private citizens' claims, such as damage actions which may otherwise be brought in state court, will cause needless delay and divert a federal court's attention and resources from issues directly relevant to the important injunctive remedy provided by Section 7003. Rather than burden federal courts with additional problems of claims joinder, bifurcation of trial and other matters, it is in our view far preferable to permit state courts to resolve state law issues and leave Section 7003 proceedings to focus solely on that special statutory claim for injunctive relief.

Citizens also already have the opportunity to intervene in Section 7003 actions and to comment formally on proposed settlements. Moreover, citizens or states have succeeded in intervening in 19 actions brought by the United States. The vast majority of existing actions under Section 7003 are highly meritorious and, usually through settlement, result in a comprehensive remedial program. Frequently, and especially in the most serious and substantial cases, a settlement is reached after months of careful investigation and scientific study by both the United States and the defendant, and involve extensive and complex, long-term commitments. Most important, settlements are particularly dependent on some finality of judgment, absent unforeseen additional complications. If Section 11(f) of H.R. 2867 is read to permit subsequent citizen or state actions, the negotiation and implementation of effective long-term consent decrees may well be hampered or delayed.

Again, I caution the Congress in any effort to provide citizens with additional federal causes of action to assess carefully what needs must be filled and to avoid the significant problems which I have described above. In order to assist in this process I am available to discuss this matter further with you and I am prepared to make my staff available to aid yours in developing proposals in this important area. Our answers to your specific questions follow.

Proposed Citizen Suits Comparable to Section 7003:

My testimony at page 18 was broader than implied by your question. That portion quoted by you was not intended to be addressed specifically to "imminent and substantial endangerment" cases, but to all situations involving the disposition of hazardous wastes. The Administrative Procedure Act affords an opportunity for citizens to seek review of federal action, where mandatory duties are not performed or are performed in a manner which is "arbitrary and capricious." Of course, Section 7003 involves the broad discretion of the Administrator to determine whether a given situation "may present an imminent and substantial endangerment," and also involves the independent prosecutorial discretion of the Department of Justice. The Department takes the position that decisions to initiate civil and criminal enforcement actions should not be second-guessed by the Judicial Branch. As to your question regarding a "lack of resources," to my knowledge no lack of resources at the Department of Justice has ever prevented the filing of a meritorious hazardous waste enforcement suit. I do not intend to allow insufficient resources to become an impediment to effective enforcement.

Intervention in Section 7003 Suits:

As of last week, 64 Section 7003 actions have been filed by the Department of Justice. Motions for leave to intervene, pursuant to Rule 24 have been filed by one or more parties in at least 21 of those actions. In the cases in which leave has been sought, 16 courts have allowed intervention, 3 courts have denied intervention, 1 motion is pending, and in 1 case the motion was withdrawn at settlement. It should be noted that the vast majority of such motions have been filed by local or state governmental entities. The United States opposed motions for leave to intervene in Section 7003 actions on three occasions. In United States v. Northeastern Pharmaceutical and Chemical Company, Inc., et al. (W.D. Mo. 80-5066-CV-S-4), an insurer of a corporation which generated large volumes of dioxin-contaminated wastes which have been dumped throughout Missouri, sought leave to intervene in the United States' action after discovery had closed and within 120 days of a once-continued trial date. We opposed intervention, believing that it could substantially delay our trial date and was unnecessary to protect any interest of the insurer. The Court agreed. (See attached opinion.) The United States also opposed intervention in two Hooker Chemicals cases in New York. In both cases, we believe that federal and state governmental entities are adequately representing public interests. In 8 cases, motions for leave to intervene were expressly supported by the United States.

Your question regarding the showing required for permissive joinder or permissive intervention raises some interesting and important questions. Permissive joinder under Rule 20(a) is within the sound discretion of the court, and is allowable if plaintiffs "assert any right to relief jointly, severally, or in the alternative in respect of or arising out of the same transaction, occurrence, or series of transactions or occurrences" or if defendants have "asserted against them jointly, severally, or in the alternative, any right to relief in respect of or arising out of the same transaction, occurrence, or series of transactions or occurrences." The showing required will vary, given the facts, circumstances and complexities of the case, and the timing of the motion. Of central importance in some cases is the question of whether joinder would unduly prejudice the interests of one of the parties to the litigation. Permissive intervention under Rule 24(b) involves similar questions, and expressly emphasizes that the application for leave to intervene be "timely," that "an applicant's claim or defense and the main action have a question "of law or fact in common," and that "the court shall consider whether the intervention will unduly delay or prejudice the adjudication of the rights of the original parties." As you know, unecessary delay can be an important factor in hazardous waste litigation. Such motions are currently within the sound discretion of the court to grant or deny, as conditions warrant.

The Notice and Public Comment Procedures Under 28 C.F.R. §50.7:

Pursuant to 28 C.F.R. §50.7, the United States notices the lodging of consent decrees in environmental enforcement cases seeking injunctive relief, including all consent decrees involving significant injunctive relief obtained in Section 7003 actions. (A copy of the regulation and sample notice published pursuant to the regulation are attached). To my knowledge, all final cleanup decrees involving Section 7003 suits have been noticed through this process, both in this Administration and in prior Administrations. In the vast majority of such cases, no public comment has been received. In two cases, substantial comments were received -- in one, non-settling generators contested the fairness of the decree vis-a-vis their potential liability for remaining response costs. In the other, various groups contended as intervenors or amicus curiae that a settlement involving one of four Hooker Chemicals sites in the Niagara Falls area, was not sufficiently protective of public health and the environment. In both cases, substantial hearings were held, and detailed opinions upholding the decrees were entered. United States v. Seymour Recycling Corp., et al. (S.D. Ind., No. 80-457-C, Dec. 15, 1983) and United States, et al. v. Hooker Chemicals and Plastics Corp., et al. (W.D. N.Y., No. 79-898C, April 30, 1982).

You have raised one question which requires some clarification: "How many voluntary settlements entered into with respect to Superfund or RCRA contain a covenant not to sue under Section 7003?"

In almost all the cases which the Department has handled for EPA, the settlement has been embodied in a consent decree.*/ Typically the government gives a release from further suit or covenant not to sue (depending on which is appropriate under state law) in exchange for action by Defendant to abate hazards made the basis of our suit. This is, of course, normal procedure in settlement of litigation. As noted above, those consent decrees are subject to notice and public comment procedures which enable citizens to have input whether by comment or intervention. These settlements depend on action by defendants which EPA believes will abate the known hazards at a site.

In our view, if defendants are exposed to additional suits over the same conditions at a site, settlement of these cases will be more difficult since defendants will choose to litigate fully their liability for clean up rather than risk settlement with the government and possible future litigation with other entities which will be costly and potentially expand liability. Currently, if new facts give rise to an endangerment at a site where settlement has occurred, the United States believes it can proceed on the new factual basis to seek relief from responsible defendants. Obviously, this could well depend on the scope of the release or covenant given to defendants in particular cases. As you are aware, litigation risks and the relative strength of the government's case dictate that the scope of release or covenant be analyzed and decided on a case-by-case basis.

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*/ The government has varied this procedure in four instances: United States v. Wade (E.D. Pa.) and United States v. Chem-Dyne (S.D. Ohio). Wade was an early case in which settlement was obtained from some parties and litigation instituted against non-settling parties. In Chem-Dyne, the United States gave only a partial release for surface clean-up, retained its rights to sue defendants for ground water contamination and filed suit against the non-settling defendants. In United States v. South Carolina Recycling Disposal Corp. (D.S.C.) the parties entered into a covenant not to sue to fund cleanup activities under a consent decree of another defendant who was subject to court suit. In the Seymour case, a "pro-rata" covenant not to sue was offered to potental defendants in exchange for payment of dollars sufficient to perform necessary clean up. In all 4 of these cases, the United States retained the right to sue and has sued or will sue non-settling parties with assets sufficient to satisfy any of the remaining cleanup cost.

Your final question invites a comparison between the public comment process and joinder and intervention. Of course, joinder is involuntary, in contrast to both the public comment process and intervention. Through joinder and intervention, persons become actual parties to the litigation -- being served with and filing pleadings including counterclaims, cross-claims and claims against third-parties. They are subject to and participate in the process of discovery and, if necessary trial of the action. They are bound by any judgment. In contrast, public comment procedures are much less cumbersome and expensive. Comments are received, considered and forwarded to the court and all counsel. If comments are received, the court may and frequently does hold a hearing to determine whether the settlement should be accepted as negotiated, or rejected because of deficiencies. The process still allows the presentation of scientific evidence, expert opinions, and the views of affected citizens. Some citizens and groups may seek leave to participate as amicus curiae, as was the case with a large portion of those persons challenging the decree in Hooker.

I hope my responses are helpful to you.

Sincerely,

Carol E. Dinkins

Carol E. Dinkins
Assistant Attorney General
Land and Natural Resources Division

Attachments

cc: Honorable John H. Chafee
Lee Thomas

IN THE UNITED STATES DISTRICT COURT FOR THE
WESTERN DISTRICT OF MISSOURI
SOUTHERN DIVISION

UNITED STATES OF AMERICA,)
)
Plaintiff,)
)
vs.) No. 80-5066-CV-S-4
)
NORTHEASTERN PHARMACEUTICAL AND)
CHEMICAL COMPANY, INC., et al.,)
)
Defendants.)

FILED
MAY 3 1983

ORDER

This case is before the Court on Continental Insurance Company's (Continental) motion for leave to intervene as of right. Plaintiff filed this action in August of 1980 seeking monetary damages against the defendants for costs plaintiff incurred in responding to an imminent health hazard allegedly caused by defendants. Plaintiff also seeks an abatement of the health hazard, if the evidence shows that the health hazard is ongoing. On March 24, 1983 this Court entered a lengthy order giving this case an anticipatory trial setting of July 25, 1983. The Court also denied the defendants' motion to extend the time for completion of discovery except for the depositions of expert witnesses. Less than a week after that order was filed, Continental sought leave to intervene as a matter of right pursuant to Rule 24(a). Continental's motion will be denied.

Continental's motion for leave to intervene is not timely. In its suggestions supporting the motion, Continental alleges that it issued general liability insurance policies to the defendant NEPACCO from August 5, 1970 to November 17, 1972. Continental states that it received notice of this lawsuit against NEPACCO on October 5, 1981. At that time, Continental "denied coverage and refused to provide a defense to the suit." Less than a week after this case was set for trial, however, Continental now seeks "leave to intervene in this action in order to assert claims for Declaratory Relief . . . and in order to submit written Interrogatories to the jury on one or more issues of fact. . . ." Continental seeks a declaration that it has no obligation under its insurance policies to defend or indemnify any of the present defendants against any judgment which may be obtained herein by the United States. Intervention as of right under Rule 24(a) requires a timely application with the applicant showing (1) an interest in the subject matter of the action, (2) protection of that interest may be impaired or impeded by the disposition of the action, and (3) the interest is not adequately represented by an existing party. As previously stated, this case is almost three years old, and the Court has recently entered an order closing discovery and giving the parties an anticipatory trial setting. Continental candidly admits that it was notified of this lawsuit on October 5, 1981--approximately eighteen months prior to seeking intervention on the eve of trial. Continental's application for leave to intervene is not timely. Carey v. Klutznick, 85 F.R.D. 249 (D. N.Y. 1980); Dodson v. Salvitti, 77 F.R.D. 674 (D. Pa. 1977).

In any event, Continental's "interest" in this lawsuit is not sufficient to allow intervention as of right. To establish that it is entitled to intervene as of right, Continental must demonstrate that it has a sufficient interest in the subject matter of the action. Roe v. K. Casey, 464 F.Supp. 483 (D. Pa. 1978). An interest sufficient to support intervention as of right must be direct, substantial and significantly protectable; an interest which is remote or contingent is insufficient. U.S. v. Carrols Development Corp., 454 F.Supp. 1215 (D. N.Y. 1978); Vazman S. A. v. Fidelity International Bank, 418 F.Supp. 1084 (D. N.Y. 1976). For example, in Eakins v. Burton, 423 S.W.2d 787 (Mo. 1968), a liability insuror filed a motion to intervene in a personal injury action arising out of a vehicular collision. The trial court denied the motion. On appeal, the insuror in that case made the same argument that Continental makes herein--namely, that the anticipation that plaintiff, if successful, will attempt to satisfy any judgment it receives against the insured by attempting to garnish the liability policy is a sufficient interest to allow intervention as of right. The Missouri Supreme Court held that since the insuror "would have an opportunity after judgment to litigate its liability under the policy its interest in the original action was 'clearly remote and contingent, not proximate or direct or immediate.'" 423 S.W.2d at 789. The Missouri Supreme Court also held, in the alternative, that the insuror's motion to intervene was not timely. 423 S.W.2d at 790. Since Continental's motion to intervene is neither timely nor alleges a sufficient interest under Rule 24(a), the motion must be denied. Therefore, it is hereby

ORDERED that Continental Insurance Company's motion for leave to intervene is denied.

RUSSELL G. CLARK, CHIEF JUDGE
UNITED STATES DISTRICT COURT

Dated: May 3, 1983

§ 50.7 Consent judgments in actions to enjoin discharges of pollutants.

(a) It is hereby established as the policy of the Department of Justice to consent to a proposed judgment in an action to enjoin discharges of pollutants into the environment only after or on condition that an opportunity is afforded persons (natural or corporate) who are not named as parties to the action to comment on the proposed judgment prior to its entry by the court.

(b) To effectuate this policy, each proposed judgment which is within the scope of paragraph (a) of this section shall be lodged with the court as early as feasible but at least 30 days before the judgment is entered by the court. Prior to entry of the judgment, or some earlier specified date, the Department of Justice will receive and consider, and file with the court, any written comments, views or allegations relating to the proposed judgment. The Department shall reserve the right (1) to withdraw or withhold its consent to the proposed judgment if the comments, views and allegations concerning the judgment disclose facts or considerations which indicate that the proposed judgment is inappropriate, improper or inadequate and (2) to oppose an attempt by any person to intervene in the action.

(c) The Assistant Attorney General in charge of the Land and Natural Resources Division may establish procedures for implementing this policy. Where it is clear that the public interest in the policy hereby established is not compromised, the Assistant Attorney General may permit an exception to this policy in a specific case where extraordinary circumstances require a period shorter than 30 days or a procedure other than stated herein.

(28 U.S.C. 509 and 510; 5 U.S.C. 301)

[Order No. 529-73, 38 FR 19029, July 17, 1973]

DEPARTMENT OF JUSTICE

Proposed Consent Decree In Action to Enforce the Clean Water Act and the Resource Conservation and Recovery Act

In accordance with Departmental Policy, 28 CFR 50.7, 38 FR 19029, notice is hereby given that on September 22, 1982, a proposed consent decree in *United States* v. *Fike Chemicals, Inc., C.S.T., Inc. and Coastal Tank Lines, Inc.*, No. 80-2497, was lodged with the United States District Court for the Southern District of West Virginia. The proposed decree provides for settlement of a suit under the Clean Water Act and the Resource Conservation and Recovery Act concerning the defendants' facilities in Nitro, West Virginia. The proposed decree requires that the defendants remedy soil and groundwater contamination on and beneath their plant sites and pay stipulated penalties in the event of a breach of the terms of the consent decree.

The Department of Justice will receive, for a period of thirty (30) days from the date of this notice, written comments relating to the proposed consent decree. Comments should be addressed to the Assistant Attorney General of the Land and Natural Resources Division, Department of Justice, Washington, D.C. 20530, and should refer to *United States* v. *Fike Chemicals, Inc., C.S.T., Inc. and Coastal Tank Lines, Inc.*, D.J. Ref. No. 90-7-1-123.

A proposed consent decree may be examined at the office of the United States Attorney, Southern District of West Virginia, 500 Quarrier Street, Charleston, West Virginia 25332; at the Region III Office of the United States Environmental Protection Agency, Office of Regional Counsel, 6th and Walnut Streets, Philadelphia, Pennsylvania 19106; and the Environmental Enforcement Section, Land and Natural Resources Division,

United States Department of Justice, Room 1515, Ninth Street and Pennsylvania Avenue, NW., Washington, D.C. 20530. A copy of the proposed consent decree may be obtained in person or by mail from the Environmental Enforcement Section, Land and Natural Resources Division of the Department of Justice. In requesting the proposed consent decree please send a check or money order in the amount of $2.30 (10 cents per page reproduction charge) made payable to the Treasurer of the United States.

Carol E. Dinkins,

Assistant Attorney General, Land and Natural Resources Division.

[FR Doc. 82-27322 Filed 10-4-82; 8:45 am]

BILLING CODE 4410-01-M

TESTIMONY OF S. KENT STODDARD

FORMER DIRECTOR, TOXIC WASTE ASSESSMENT GROUP

GOVERNOR'S OFFICE OF APPROPRIATE TECHNOLOGY

STATE OF CALIFORNIA

PRESENTED TO THE

COMMITTEE ON ENVIRONMENT AND PUBLIC WORKS

UNITED STATES SENATE

MR. CHAIRMAN, MEMBERS OF THE COMMITTEE, MY NAME IS KENT STODDARD. FOR 2½ YEARS I DIRECTED CALIFORNIA'S PROGRAM TO PHASE-OUT THE LAND DISPOSAL OF HIGHLY TOXIC WASTES AND TO ENCOURAGE THE CONSTRUCTION OF NEW WASTE TREATMENT FACILITIES.

I APPRECIATE THE OPPORTUNITY TO TESTIFY BEFORE YOU TODAY ABOUT CALIFORNIA'S PROGRAM AND OUR SUCCESS TO DATE IN ATTEMPTING TO ELIMINATE ONE OF THE MOST SERIOUS ENVIRONMENTAL AND PUBLIC HEALTH PROBLEMS FACING THIS NATION--OUR CONTINUED RELIANCE ON LAND FOR THE DISPOSAL OF HIGHLY TOXIC WASTES.

THIS IS THE THIRD TRIP I HAVE MADE TO WASHINGTON DURING THE LAST SIX MONTHS TO TESTIFY ON THE PROBLEMS ASSOCIATED WITH LAND DISPOSAL AND THE TECHNICAL AND ECONOMIC FEASIBILITY OF ALTERNATIVE TREATMENT TECHNOLOGIES.

I FIND THAT I HAVE EXHAUSTED THE LIST OF ALARMING ADJECTIVES THAT CAN BE USED TO ACCURATELY DESCRIBE THE MAGNITUDE OF THIS COUNTRY'S TOXIC WASTE PROBLEM. YET THE PROBLEM CONTINUES TO GROW IN WAYS THAT DEFY COMPREHENSION AND RATIONAL EXPLANATION. TIMES BEACH, LOVE CANAL, AND THE STRINGFELLOW ACID PITS ARE ONLY THREE OF THE THOUSANDS OF TOXIC DUMP SITES LOCATED THROUGHOUT THE COUNTRY. THESE SITES HAVE BECOME SYMBOLS OF A MASSIVE ENGINEERING AND SOCIAL FAILURE - A FAILURE THAT THREATENS OUR HEALTH, POLLUTES OUR WATER AND DRAINS OUR LIMITED FINANCIAL RESOURCES.

I WOULD LIKE TO SHARE A FEW FACTS ABOUT CALIFORNIA THAT ILLUSTRATE THE SEVERITY OF OUR TOXIC WASTE PROBLEM. CALIFORNIA RELIES ON GROUNDWATER FOR ½ OF IT'S TOTAL SUPPLY OF DRINKING WATER. MUCH OF OUR IRRIGATION SUPPLY IS ALSO TAKEN FROM UNDERGROUND AQUIFERS. RECENTLY WE HAVE DISCOVERED THAT:

- OVER 200 WELLS IN 15 COUNTIES ARE CONTAMINATED WITH TOXIC SUBSTANCES;
- 2/3 OF OUR 67 HIGH PRIORITY SUPERFUND SITES HAVE EITHER ALREADY POLLUTED UNDERLYING GROUND WATER OR ARE EXPECTED TO DO SO; AND
- 70% OF THE STATE'S 1700 HAZARDOUS WASTE SURFACE IMPOUNDMENTS HAVE BEEN DETERMINED TO HAVE A HIGH POTENTIAL FOR GROUNDWATER CONTAMINATION. (IT COULD TAKE THE STATE OVER A DECADE TO COMPLETE THE PERMITTING OF THESE FACILITIES.)

WE HAVE ALSO DISCOVERED 106 ORGANIC CONTAMINANTS IN CALIFORNIA'S GROUNDWATER. YET THE NATION AND CALIFORNIA HAVE DRINKING WATER STANDARDS FOR ONLY SIX OF THESE ORGANIC CONTAMINANTS. OPERATORS OF PUBLIC WATER SYSTEMS ARE NOT EVEN REQUIRED TO ROUTINELY MONITOR FOR THE MOST COMMON AND HIGHLY TOXIC ORGANIC POLLUTANTS LIKE TRICLOROETHYLENE AND BENZENE-SUBSTANCES WHICH ARE KNOWN TO BE LEAKING FROM HAZARDOUS WASTE LANDFILLS, SURFACE IMPOUNDMENTS AND UNDERGROUND STORAGE TANKS.

CLEARLY WE ARE ON THE VERGE OF A CRISIS WE ARE NOT EQUIPPED TO HANDLE. IF WE DETECT SERIOUS GROUNDWATER CONTAMINATION FROM ONLY 30% OF THE HAZARDOUS WASTE SITES THAT ARE NOW RATED AS HAVING A HIGH POTENTIAL FOR CONTAMINATION, CALIFORNIA'S SUPERFUND LIST COULD BE LONGER THAN THE CURRENT NATIONAL PRIORITY LIST. THE NUMBER OF SITES REQUIRING CLEAN-UP COULD BE OVER 400 - JUST FOR CALIFORNIA. NEEDLESS TO SAY NEITHER OUR STATE GOVERNMENT NOR OUR INDUSTRIES COULD AFFORD THE BILLIONS OF DOLLARS REQUIRED TO CLEANUP 400 SITES.

FORTUNATELY CALIFORNIA HAS NOW PUT INTO PLACE A PROGRAM THAT WILL HELP PREVENT THE CONTINUED CONTAMINATION OF OUR LAND AND WATER. IT IS A PROGRAM THAT SHOULD NOT BE RESTRICTED ONLY TO CALIFORNIA. IT IS A WORKABLE AND COMMON-SENSE APPROACH THAT SHOULD BECOME THE CENTERPIECE OF OUR NATIONAL WASTE MANAGEMENT STRATEGY.

IN MY TESTIMONY TODAY, I WILL TRY TO BRIEFLY SUMMARIZE THE APPROACH CALIFORNIA HAS TAKEN TO RESTRICT LAND DISPOSAL AND ENCOURAGE THE USE OF ALTERNATIVE TECHNOLOGIES.I WILL SUMMARIZE A MAJOR STUDY WE PREPARED ON ALTERNATIVES TO LAND DISPOSAL, DESCRIBE HOW OUR NEW LANDFILL BAN WORKS, AND DISCUSS THE EFFECT OUR PROGRAM HAS HAD ON CALIFORNIA'S BUSINESS AND INDUSTRIAL COMMUNITY.

CALIFORNIA'S PROGRAM TO PHASE-OUT THE LAND DISPOSAL OF HIGHLY TOXIC WASTES

IN 1981 CALIFORNIA COMPLETED ONE OF THE MOST COMPREHENSIVE STUDIES ATTEMPTED BY ANY STATE TO DETERMINE JUST HOW MUCH OF OUR WASTE STREAM COULD BE RE-DIRECTED FROM LAND DISPOSAL FACILITIES. WE PREPARED THE FIRST DETAILED CHARACTERIZATION OF THE TYPES AND QUANTITIES OF WASTE PRODUCED THROUGHOUT THE STATE; IDENTIFIED THE TYPE OF WASTES WHICH REPRESENT THE GREATEST RISK TO HUMAN HEALTH AND ENVIRONMENTAL RESOURCES WHEN PLACED IN THE LAND; AND RESEARCHED OVER ONE HUNDRED SEPARATE ALTERNATIVE WASTE MANAGEMENT TECHNOLOGIES. THE PRODUCT OF THIS EFFORT WAS A REPORT ENTITLED: *ALTERNATIVES TO THE LAND DISPOSAL OF HAZARDOUS WASTES: AN ASSESSMENT FOR CALIFORNIA*.

THE REPORT WAS WRITTEN BY THE OFFICE OF APPROPRIATE TECHNOLOGY WITH HELP OF A SEVENTEEN-MEMBER ADVISORY COMMITTEE THAT INCLUDED:

- NINE MEMBERS FROM THE WASTE GENERATING AND DISPOSAL INDUSTRY;
- THREE REPRESENTATIVES OF ENVIRONMENTAL AND PUBLIC INTEREST GROUPS;
- THREE REPRESENTATIVES OF THE UNIVERSITY OF CALIFORNIA;
- A PRIVATE CONSULTANT, AND AN ENVIRONMENTAL ENGINEER FROM EPA.(ATTACHMENT A)

AT THE TIME, THE CONCLUSIONS OF OUR STUDY WERE STARTLING TO BOTH THE GOVERNOR AND LEGISLATURE. WE FOUND THAT:

1. ALMOST 40% OF ALL THE HAZARDOUS WASTES PLACED IN CALIFORNIA'S OFF-SITE LAND DISPOSAL FACILITIES WERE HIGHLY TOXIC AND VERY PERSISTENT. THESE

WASTES, WHICH ARE CAPABLE OF CAUSING DEATH AND SERIOUS HUMAN ILLNESS AND DO NOT DEGRADE FOR LONG PERIODS OF TIME, WERE UNQUESTIONABLY INAPPROPRIATE FOR LAND DISPOSAL.

2. IT IS TECHNOLOGICALLY FEASIBLE TO RECYCLE, TREAT, OR DESTROY AT LEAST 75% OF ALL THE HAZARDOUS WASTES WHICH WERE DISPOSED OF IN OUR CLASS 1 LANDFILLS.

3. THE ADDITIONAL COST OF RECYCLING, TREATING, OR INCINERATING HIGHLY TOXIC WASTES WOULD HAVE A MINIMAL EFFECT OF CALIFORNIA INDUSTRIES AND WAS JUSTIFIED GIVEN THE SERIOUS RISKS TO HUMAN HEALTH AND THE ENVIRONMENT.

4. MOST OF THE NEW ALTERNATIVE WASTE MANAGEMENT CAPACITY CALIFORNIA WOULD NEED TO RECYCLE, TREAT AND DESTROY ITS HAZARDOUS WASTES COULD BE DEVELOPED IN LESS THAN 2 YEARS.

AFTER 1½ YEARS OF CLOSE SCRUTINY BY THE CALIFORNIA LEGISLATURE AND THE CHEMICAL, PETROLEUM, AND ELECTRONICS INDUSTRIES, THESE MAJOR CONCLUSIONS ARE ALMOST UNIVERSALLY ACCEPTED.

TODAY, IN CALIFORNIA, THE NECESSITY OF RESTRICTING CERTAIN HAZARDOUS WASTES FROM LAND DISPOSAL BECAUSE OF THEIR TOXICITY, MOBILITY, AND PERSISTENCE IS SUPPORTED BY WIDELY DIVERSE INTERESTS AND ORGANIZATIONS INCLUDING:

-HAZARDOUS WASTE GENERATORS;
-CHEMICAL WASTE PROCESSORS;
-LOCAL HEALTH OFFICERS; AND
-PUBLIC INTEREST GROUPS.

I HAVE ATTACHED TO MY WRITTEN TESTIMONY (ATTACHMENT B) A LIST OF OVER 30 ORGANIZATIONS, COMPANIES, AND GOVERNMENT AGENCIES THAT ARE OFFICIALLY ON RECORD IN SUPPORT OF PROHIBITIONS ON LAND DISPOSAL. THIS LIST INCLUDES:

-DOW CHEMICAL;
-WESTERN OIL AND GAS ASSOCIATION;
-CHEMICAL WASTE MANAGEMENT, INC.;
-NATIONAL SOLID WASTE MANAGEMENT ASSOCIATION;
-CALIFORNIA CONFERENCE OF LOCAL HEALTH OFFICERS;
-CALIFORNIA MEDICAL ASSOCIATION; AND THE
-LEAGUE OF WOMEN VOTERS.

OUR REPORT ON LANDFILL ALTERNATIVES OFFERED THREE KEY RECOMMENDATIONS TO THE GOVERNOR AND THE LEGISLATURE AS A MEANS OF DRASTICALLY REDUCING THE FOUR MILLION TONS OF HAZARDOUS WASTE THAT ARE PLACED EACH YEAR IN CALIFORNIA LANDFILLS. THOSE RECOMMENDATIONS WERE AS FOLLOWS:

1. CALIFORNIA'S REGULATORY AGENCIES SHOULD PROHIBIT THE LAND DISPOSAL OF HIGHLY TOXIC AND PERSISTENT WASTES;
2. THE STATE SHOULD ESTABLISH HIGHER FEES ON THE LAND DISPOSAL OF ALL HAZARDOUS WASTES.
3. THE STATE SHOULD ENCOURAGE THE CONSTRUCTION OF NEW ALTERNATIVE WASTE MANAGEMENT FACILITIES BY STREAMLINING THE PERMIT PROCESS AND BY PROVIDING FINANCIAL INCENTIVES FOR NEW INVESTMENTS IN ALTERNATIVE TECHNOLOGIES.

THESE RECOMMENDATIONS REPRESENTED A RADICAL SHIFT AWAY FROM THE STATE'S PRECARIOUS DEPENDENCE ON LAND DISPOSAL AND MARKED THE BEGINNING OF AN AGGRESSIVE PROGRAM

TO DIRECT THE MOST HAZARDOUS WASTES TO NEW RECYCLING, TREATMENT AND DESTRUCTION FACILITIES.

CALIFORNIA'S REGULATIONS TO BAN LAND DISPOSAL OF HIGHLY TOXIC WASTES. SIX MONTHS AGO, THE CALIFORNIA DEPARTMENT OF HEALTH SERVICES FORMALLY ADOPTED REGULATIONS WHICH BAN THE LAND DISPOSAL OF FIVE CATEGORIES OF HAZARDOUS WASTES. THOSE CATEGORIES ARE:

- CYANIDES
- TOXIC METALS
- STRONG ACIDS
- PCB'S
- HALOGENATED ORGANIC COMPOUNDS

THESE ARE ALMOST IDENTICAL TO THE CATEGORIES THAT WERE DEVELOPED BY OUR ADVISORY GROUP. THEY ARE THE FIVE CATEGORIES THAT NEARLY EVERYONE AGREES REPRESENT THE GREATEST RISK TO HUMAN HEALTH AND ENVIRONMENTAL RESOURCES WHEN DEPOSITED IN A LAND DISPOSAL FACILITY. THESE ARE THE WASTES WE ARE SPENDING MILLIONS OF SUPERFUND DOLLARS TO CLEAN-UP AT DUMP SITES THROUGHOUT THE COUNTRY. THESE ARE WASTES WHICH WE NEVER SHOULD HAVE ALLOWED TO BE DEPOSITED IN THE LAND.

THE CALIFORNIA LIST OF WASTES TO BE PROHIBITED FROM LAND DISPOSAL HAS BEEN INCORPORATED INTO THE LATEST VERSION OF THE HOUSE BILL REAUTHORIZING RCRA. I BELIEVE THESE ARE ENORMOUS BENEFITS TO USING THE CALIFORNIA LIST. CALIFORNIA'S LIST IS BASED ON SOUND, WIDELY ACCEPTED CRITERIA; HAS ALREADY BEEN SUBJECTED TO RIGOROUS REVIEW; AND COULD BE IN PLACE AT LEAST ONE FULL YEAR AHEAD OF ANY NEW LIST THAT WOULD HAVE TO BE DEVELOPED UNDER FEDERAL REGULATIONS. ALTHOUGH IT SHOULD NOT BE VIEWED AS THE DEFINITIVE LIST, IT REPRESENTS A VERY SENSIBLE AND EXPEDITIOUS WAY TO BEGIN CURTAILING LAND DISPOSAL.

BUT CALIFORNIA'S PROGRAM IS MORE THAN JUST A LIST OF WASTES TO BE BANNED FROM LAND DISPOSAL. THERE ARE SEVERAL KEY ASPECTS OF OUR NEW REGULATORY PROGRAM THAT DESERVE SPECIAL ATTENTION--

FIRST: THE REGULATIONS BAN ONLY THE LAND DISPOSAL OF HIGHLY TOXIC WASTES--NOT ALL HAZARDOUS WASTES. WE BELIEVE THERE ARE SOME WASTES WHICH CAN BE SAFELY DEPOSITED IN LANDFILLS. HIGH VOLUME WASTES SUCH AS DRILLING MUDS, BRINES, AND MANY OILY WASTES CAN CONTINUE TO BE DEPOSITED IN LANDFILLS OR REINJECTED INTO THE GROUND.

SECOND: THE REGULATIONS PROVIDE FOR A PHASE-OUT ON THE LAND DISPOSAL OF HIGHLY TOXIC WASTES OVER A TWO-YEAR PERIOD WHICH STARTED THIS MONTH.

- JUNE 1, 1983, THE STATE BANNED CYANIDE WASTES;
- JANUARY 1, 1984, WE WILL BAN TOXIC METAL WASTES, STRONG ACIDS, AND PCB'S;
- JANUARY 1, 1985, WE WILL BAN LIQUID WASTES CONTAINING HALOGENATED ORGANICS; AND FINALLY
- JULY 1, 1985, CALIFORNIA WILL BAN SLUDGES AND SOLIDS CONTAINING HALOGENATED ORGANIC COMPOUNDS.

THE PHASE-OUT SCHEDULE IS INTENDED TO PROVIDE JUST ENOUGH TIME TO ENSURE THAT ALTERNATIVE TREATMENT AND DESTRUCTION CAPACITY IS AVAILABLE BY THE TIME THE LAND DISPOSAL RESTRICTIONS TAKE EFFECT. THE STATE MUST MAKE A DETERMINATION THAT ALTERNATIVE TREATMENT CAPACITY IS AVAILABLE AT LEAST 60 DAYS PRIOR TO THE RESTRICTION DATES. IT IS NOT THE STATE'S INTENT TO BAN DISPOSAL IF THERE ARE NO AVAILABLE ALTERNATIVES.

FINALLY: THE REGULATIONS ALLOW ANY PERSON OR COMPANY TO PETITION FOR A VARIANCE FROM THE LAND DISPOSAL RESTRICTIONS. THE BURDEN OF PROOF IS SIMPLY SHIFTED TO THE PETITIONER TO DOCUMENT THAT THEIR WASTE WILL NOT PRESENT A POTENTIAL HAZARD TO PUBLIC HEALTH, DOMESTIC LIVESTOCK, WILDLIFE, OR THE ENVIRONMENT WHEN PLACED IN A LAND DISPOSAL FACILITY.

THE VARIANCE PROCEDURE IS AN ESSENTIAL PART OF CALIFORNIA'S PROGRAM. IT ALLOWS US TO BAN LARGE CATEGORIES OF HAZARDOUS WASTE SUCH AS HALOGENATED ORGANICS WITHOUT IMPOSING UNREASONABLE REQUIREMENTS ON INDUSTRY. THE FACTORS CALIFORNIA CONSIDERS PRIOR TO GRANTING A VARIANCE INCLUDE:

- THE ABILITY OF THE LAND DISPOSAL PRACTICE TO TOTALLY ISOLATE THE RESTRICTED HAZARDOUS WASTE:
- THE PETITIONER'S EFFORT TO SEEK ALTERNATIVE TREATMENT OR RECYCLING OPTIONS; AND
- SEVERE ECONOMIC HARDSHIP

A COPY OF CALIFORNIA'S NEW LAND DISPOSAL RESTRICTION REGULATIONS ALONG WITH SUPPORTING INFORMATION DOCUMENTING THEIR NECESSITY, REASONABLENESS, AND ECONOMIC FEASIBILITY WILL BE SUBMITTED TO THE COMMITTEE.

THE EFFECT OF CALIFORNIA'S PROGRAM ON INDUSTRY

THERE WAS A GREAT DEAL OF ANXIETY AMONG CALIFORNIA'S INDUSTRIAL AND BUSINESS COMMUNITY WHEN THE STATE FIRST INITIATED ITS PROGRAM TO RESTRICT LAND DISPOSAL. MANY OF THE STATE'S WASTE GENERATORS WERE CONCERNED THAT NEW WASTE TREATMENT FACILITIES WOULD NOT BE BROUGHT ON-LINE AS QUICKLY AS THE STATE SCHEDULE REQUIRED. MANY COMPANIES WERE

ALSO CONCERNED THAT THE COST OF TREATMENT WOULD BE TWO TO THREE TIMES HIGHER THAN THAT OF LAND DISPOSAL.

I BELIEVE IT IS FAIR TO SAY THAT NEITHER OF THESE ARE MAJOR CONCERNS TODAY. DURING THE LAST 18 MONTHS THE STATE HAS ISSUED SEVEN NEW PERMITS FOR THE TREATMENT OR DESTRUCTION OF CYANIDES, PCB'S, TOXIC METALS, STRONG ACIDS, ORGANIC SOLVENTS, AND PESTICIDES. THE STATE IS CURRENTLY WORKING ON SEVEN ADDITIONAL PERMITS FOR WASTE TREATMENT FACILITIES.

I SHOULD ALSO POINT OUT THAT THERE ARE SEVERAL FACTORS THAT HAVE RECENTLY MADE ALTERNATIVE TECHNOLOGIES MORE ECONOMICALLY ATTRACTIVE TO CALIFORNIA INDUSTRIES.

1. THE COST OF LAND DISPOSAL IS INCREASING IN CALIFORNIA DUE TO MORE STRINGENT STATE AND FEDERAL REGULATIONS.
2. THE STATE CURRENTLY IMPOSES A TAX OF $15 ON EACH TON OF EXTREMELY HAZARDOUS WASTE THAT IS DEPOSITED IN A LANDFILL. THIS TAX, WHICH SUPPORTS CALIFORNIA'S SUPERFUND PROGRAM, WILL GO UP TO ABOUT $30 A TON ON JULY 1.
3. SEVERAL HUNDRED OF THE STATE'S LARGEST WASTE GENERATORS HAVE BEEN NAMED AS RESPONSIBLE PARTIES AT MANY OF OUR SUPERFUND SITES. THESE COMPANIES MAY BE REQUIRED TO PAY FOR CLEAN-UP ACTIVITIES TOTALLING MORE THAN $60 MILLION.

IT IS CLEAR THAT FOR MANY CALIFORNIA COMPANIES LAND DISPOSAL HAS TURNED OUT TO BE A VERY BAD BARGAIN. THE COST OF CLEANING-UP THE McCOLL, STRINGFELLOW, AND AEROJET SITES MAY BE OVER 100 TIMES MORE EXPENSIVE THAN IT WOULD HAVE BEEN TO TREAT THESE WASTES AT THE TIME THEY WERE PRODUCED.

IT IS ALSO IMPORTANT TO NOTE THAT IN ADDITION TO HELPING COMPANIES AVOID

LONG-TERM LIABILITY AND FUTURE CLEAN-UP COSTS, THE STATE HAS ALSO FOUND THAT IN SOME CASES WASTE TREATMENT IS ACTUALLY CHEAPER THAN LAND DISPOSAL.

IN A RECENT REPORT PREPARED BY THE DEPT. OF HEALTH SERVICES, STAFF DISCOVERED THAT SOME BUSINESSES WILL ACTUALLY SAVE MONEY BY HAVING THEIR CYANIDE WASTES TREATED RATHER THAN DEPOSITED IN A LAND DISPOSAL FACILITY. IN ALL CASES THE COST OF CYANIDE TREATMENT COMPARED VERY FAVORABLY TO THE COST OF LAND DISPOSAL.

TO MY KNOWLEDGE CALIFORNIA HAS PERFORMED THE MOST DETAILED ECONOMIC ASSESSMENT OF COSTS ASSOCIATED WITH LAND DISPOSAL AND ALTERNATIVE TECHNOLOGIES. BASED ON OUR WORK DURING THE LAST TWO YEARS, I BELIEVE IMMEDIATE PROHIBITIONS ON LAND DISPOSAL CAN BE JUSTIFIED SOLELY ON ECONOMIC ARGUMENTS WITHOUT EVEN CONSIDERING THE POTENTIAL IMPACTS ON PUBLIC HEALTH. AS CONSUMERS WE ARE SHARING THE ENORMOUS COST OF CLEANING UP DUMP SITES THAT WERE CREATED BY THE LAND DISPOSAL OF HIGHLY TOXIC WASTES. YET A WORST—CASE ANALYSIS SHOWS THAT IF ALL THE COSTS OF MORE EXPENSIVE ALTERNATIVE TREATMENT TECHNOLOGIES ARE PASSED-ON TO CONSUMERS, EACH RESIDENT OF CALIFORNIA WOULD EXPECT TO PAY ONLY 75 CENTS PER YEAR FOR THE RECYCLING, TREATMENT, AND DESTRUCTION OF SOCIETY'S HIGHLY TOXIC WASTES. THIS IS AN OUTSTANDING BARGAIN!

CONCLUSION

CALIFORNIA'S HAZARDOUS WASTE PROBLEMS ARE NOT SIGNIFICANTLY DIFFERENT FROM THOSE OF MOST LARGE, INDUSTRIALIZED STATES. OUR PROGRAM TO PHASE-OUT LAND DISPOSAL COULD EASILY BE REPEATED IN OTHER STATES OR ENACTED AS A NATIONAL PROGRAM.

WE HAVE DOCUMENTED THAT ALTERNATIVE WASTE MANAGEMENT TECHNOLOGIES REPRESENT THE SAFEST, MOST EXPEDIENT, AND MOST ECONOMICAL METHOD OF DEALING WITH OUR

NATION'S HAZARDOUS WASTE PROBLEM - A PROBLEM THAT HAS ALREADY REACHED CRISIS PROPORTIONS.

MR. CHAIRMAN, THE INTENT OF CONGRESS TO PROTECT THE PUBLIC FROM HAZARDOUS WASTES CAN NEVER BE FULFILLED AS LONG AS THIS COUNTRY ALLOWS KNOWN CARCINOGENS, MUTAGENS AND OTHER HIGHLY TOXIC WASTES TO BE DUMPED IN THE GROUND. I URGE YOU AND MEMBERS OF YOUR COMMITTEE TO TAKE AGGRESSIVE ACTION THIS SESSION THAT WILL IMMEDIATELY MOVE THIS COUNTRY AWAY FROM ITS UNWISE AND DANGEROUS DEPENDENCE ON LAND DISPOSAL.

ATTACHMENT A

David Bauer, Vice President, Environmental Affairs
IT Corporation

Michael E. Belliveau, Research Associate
Citizens for a Better Environment

Dr. Selina Bendix, President
Bendix Environmental Research, Inc.

Davis Bernstein, Environmental Engineer
US EPA Hazardous Materials Branch

Bill Birtcil, Western Regional Manager
State Government Relations, TRW

Bryant Fischback, Environmental Services Manager
Western Division, Dow Chemical, US

Allegra Hamman, Cancer Project Director
Campaign for Economic Democracy

Thomas M. Meichtry, President
California Chemical Waste Processors Association

Jim Noddings, Manager of Facilities Engineering
Signetics Corporation

Ken O'Morrow, Director of Environmental and Technical Affairs
Oil & Solvent Process Company

Dr. Richard Perrine, Chairman
Environmental Science and Engineering, UCLA

H.M. Schneider, President
Romic Chemical Corporation

Dr. Robert Spear, Professor
School of Public Health
University of California, Berkeley

Michael Storper, Legislative Coordinator
Friends of the Earth

Dr. George J. Trezek, Professor
Department of Mechanical Engineering
University of California, Berkeley

Jim Van Sant, Corporate Environmental Manager
Fairchild Corporation

James V. Wiseman, Manager
Environmental Control, Western Region
Stauffer Chemical Company

ATTACHMENT B

SUPPORT FOR RESTRICTING THE LAND DISPOSAL OF HAZARDOUS WASTES

WESTERN OIL & GAS ASSOCIATION
DOW CHEMICAL COMPANY
AFL/CIO
CHEMICAL WASTE MANAGEMENT
3M CORPORATION
HAZARDOUS WASTE TREATMENT COUNCIL
BKK CORPORATION
NATIONAL SOLID WASTE MANAGEMENT ASSOCIATION
U.S. EPA
CALIFORNIA AIR RESOURCES BOARD
CALIFORNIA WATER RESOURCES CONTROL BOARD
CALIFORNIA CONFERENCE OF LOCAL HEALTH OFFICERS
LOS ANGELES CITY ATTORNEY'S OFFICE
ASSOCIATION OF BAY AREA GOVERNMENTS
CALIFORNIA MEDICAL ASSOCIATION
ENVIRONMENTAL DEFENSE FUND
NATURAL RESOURCES DEFENSE COUNCIL
CITIZENS FOR A BETTER ENVIRONMENT
FRIENDS OF THE EARTH
LEAGUE OF WOMEN VOTERS
ENVIRONMENTAL HEALTH COALITION
CONCERNED NEIGHBORS IN ACTION
CITY OF WEST COVINA
LOS ANGELES COUNTY DEPARTMENT OF HEALTH SERVICES
TEXAS A&M UNIVERSITY
CITY OF SIMI VALLEY
SACRAMENTO COUNTY HEALTH DEPARTMENT
ENVIRONMENTAL ACTION FOUNDATION
ENV, INC.
ENVIRITE WASTE TREATMENT SERVICE
BENDIX ENVIRONMENTAL RESEARCH
CITIZEN'S CLEARINGHOUSE FOR HAZARDOUS WASTES, INC.
SIERRA CLUB
CALIFORNIA STATE GRANGE

NSWMA
NATIONAL SOLID WASTES MANAGEMENT ASSN.

National Solid Wastes Management Association

1120 CONNECTICUT AVENUE, N.W. • SUITE 930 • WASHINGTON, D.C. 20036
TELEPHONE (202) 659-4613

EUGENE J. WINGERTER
EXECUTIVE DIRECTOR

Statement of

John Mobley

President, Mobley Industries
Austin, Texas

before the

Subcommittee on Environmental Pollution

Committee on Environment and Public Works

U.S. Senate

June 8, 1983

- Institute of Waste Technology
  - *Waste Haulers Council*
  - *Sanitary Landfill Council*
  - *Liquid Waste and Sludge Transporters Council*
- Waste Equipment Manufacturers Institute
- Institute of Waste Equipment Distributors
- Institute of Chemical Waste Management
- Institute of Resource Recovery
- International Council of Waste Service Industries

Mr. Chairman and members of the committee, My name is John Mobley. I am president of Mobley Industries, Austin, Texas, and operate a new hazardous waste injection well facility in Tyler, Texas. I am appearing before you today to present my personal views on several land disposal issues raised in the reauthorization of the Resource Conservation and Recovery Act, S.757 and its House counterpart. These views also represent the views of the Institute of Chemical Waste Management, an official institute of the National Solid Wastes Management Association (NSWMA) whose statement on the entire bill you will receive tomorrow. The Institute is composed of firms like mine which operate hazardous waste treatment and disposal facilities permitted under RCRA.

Senator Chafee, you and Senator Randolph have again distinguished yourselves as knowledgeable, progressive and skilled legislators in your approach to RCRA reauthorization and, of most interest to this panel, Section 5 of your bill, S.757 "Land Disposal Limitations." My statement today will go beyond the issues addressed in your bill to encompass some of the alternative suggestions being offered in other bills in the Senate and the other body.

We are here today to discuss land disposal of hazardous waste. The whole matter of waste disposal has a negative context. Wastes, by their very definition, represent those things that are of no use to anyone. No one wants to produce them, they represent unproductive resources, a bother and expense to get rid of. And yet we in the waste disposal business, have most appreciated the enlightened understanding by the Congress and state legislators of the need for regulatory controls sufficient to assure the proper management of these wastes so that they do not represent a threat to human health or the environment now or in the years and years to come.

The ideal solution to the waste disposal "problem" is, of course, to ban the production of these wastes by restricting the manufacture of those products which have waste by-products, particularly if those wastes are potentially hazardous. Unfortunately, like so many ideal solutions this bumps into reality rather quickly. Virtually every manufactured product in this room today as well as those in our homes, businesses and offices entails the generation of wastes, and virtually all of them also entail the generation of hazardous wastes. While we can hope and encourage the reduction of this waste we must plan how to dispose of it safely.

Physics teaches us one essential truth: matter can be rearranged, but it cannot be destroyed. When RCRA was enacted in 1976, it provided regulation of the last "environmental sink" through which wastes could escape regulation. Earlier, the Clean Air Act and the Clean Water Act regulated those media; RCRA regulated land disposal. One of the purposes of S.757 is to further refine these regulatory controls. Under the Clean Air Act for example, Section 112 supposedly regulates emissions of hazardous air pollutants. EPA is way behind schedule in this program. Under the Water Pollution Control Act, EPA is developing pretreatment standards to protect Publicly Owned Treatment Works (POTWs) from overloads of both conventional and toxic pollutants. RCRA exempts discharges into POTWs on the logic that these are covered by EPA pretreatment standards under the Clean Water Act--pretreatment standards which do not exist. S.757 also closes the small quantity generator exemption, burning of hazardous wastes in industrial boilers and the like.

The section on land disposal, however, deals directly with the adequacy of the new regulations on land disposal facilities which went into effect only January 26 of this year. As I speak today, there are no RCRA-permitted facilities for us to judge for their environmental acceptability. We are still dealing with the experiences of the past and the concepts of engineers, hydrologists and geologists.

Without being critical, let me suggest the Section 5 and its counterparts in the other bills, are more a reaction to the inadequacies of past, relatively unregulated disposal practices than they are a finding that the current standards have proven deficient.

Having said that much, you might conclude that my statement today would be a ringing endorsement of the new land disposal regulations. I assure you it is not.

Waste disposal concerns like mine are vitally concerned with the integrity of our disposal processes. We are concerned that the public understands and has confidence that the technology we are employing is the best management technology for particular hazardous wastes. While we oppose unnecessary over-regulation, we do so on behalf of our customers and the general burden on the economy, not our particular self-interest. So long as all management operators play by the same rules, we consider environmental compliance not only a cost which can be readily "passed-through" to our customers, but a measure of insurance helping us manage our future liabilities.

Let us recognize, however, that among the variety of treatment and disposal technologies presently and prospectively available for the management of hazardous wastes, land disposal must necessarily be part of our overall strategy. All treatment technologies depend ultimately on land disposal for their residue. Some technologies reduce the quantity greatly while other technologies increase the volume of waste requiring land disposal. No alternative which succeeds in managing wastes in such a way as to largely eliminate the risk of harm to human health and environment should be discouraged in any way.

It is in this spirit that I want to wholeheartedly endorse Section 5 of your bill, S.757. Its provisions extend the current regulations in a manner wholly consistent with our national policy of assuring complete environmental protection in the land disposal of hazardous wastes.

In addition to facility standards promulgated under Section 3004 of the Solid Waste Disposal Act, Section 5 would add requirements that the Administrator examine the various waste streams which might be directed to land disposal for the purpose of determining whether any of the particular waste streams should be prohibited from one or more types of land disposal.

Of course, the primary concern has been the failure of landfill facilities in the past, remembering, again, that these facilities were not constructed nor operated to meet the tough new standards which went into effect this year. Still, land disposal, not only in landfills but in land treatment, land farming, and injection wells as well as all other treatment and disposal technologies should be regulated in such a way that wastes are matched with a management technology which can handle them effectively.

Section 5 accomplishes this. It directs the Administrator to promulgate within twelve months regulations prohibiting the disposal on or into the land of wastes either listed under Section 3001 or found to be hazardous on the basis of their corrosivity, reactivity, acidity or ignitability. In conducting this rulemaking, the Administrator is directed to take into account the persistence, toxicity, mobility and propensity to bioaccumulate such hazardous wastes. This is an appropriate second line of defense supplementing facility standards which went into effect in January.

In conducting the rulemaking, the Administrator is also directed to consider those wastes which have been prohibited from land disposal by any of the states and those which which contain significant concentrations of halogenated organic compounds, or those wastes which any state or interested person might petition the Administrator for prohibition of. Prohibition would go into effect on the date of promulgation. Again, these provisions are right on target. The state of California has produced a list of wastes which are being phased out of land disposal in that state. Some have suggested that this list be banned from all land disposal within twelve months unless EPA makes a finding, through a rulemaking that such a practice is safe. There is no basis in the California rulemaking which justifies Congress taking this step. In California, the primary concern was with landfills. The list was drawn up before EPA's stringent land disposal regulations were published. And, the regulations are going into effect over a period of several years allowing affected industries to determine alternatives. The flexibility allowed in Section 5 of S.757 is necessary to accomplish the objectives of eliminating land disposal of wastes which cannot safely be managed in or on the land.

On the other hand, the provision of Section 5 that the prohibition be effective upon promulgation is also appropriately tough. NSWMA told the state of California when it was promulgating its rules that if it determined through scientific evidence, that wastes could not safely be handled in land disposal facilities of various types, those wastes should be banned immediately from future land disposal in any unsafe technology rather than any phase-in allowed over a period of several years. This is the responsible position is adopted by Section 5 of your bill. We urge you to retain it or even strengthen it by narrowing the conditions under which the Administrator can establish alternative effective dates based on the availability of alternatives. Nevertheless, it is a strong provision.

Section 5 also provides restrictions on disposal of liquids in landfills. This is a matter for public concern and Congressional legislation. As you know, EPA has banned the disposal of containerized free liquids in landfills. This is a proper control. But, present EPA regulations allow the continued bulk disposal of liquid wastes in landfills. This practice should be eliminated, consistent with EPA's strategy of minimizing liquids going into landfills. NSWMA has sued EPA to close this loophole. Your bill calls for regulations to "minimize" the disposal of liquid hazardous wastes in landfills. We would hope that given a suitable test for determining what is a "liquid" and what is a "solid" in such materials as sludges from pollution abatement facilities and resource recovery facilities, your final bill will go at least as far as the present language of Section 5 to prohibit the disposal of liquids in landfills.

But all land disposal facilities are not landfills. You must keep in mind that there is a world of difference between land disposal above or into a drinking water aquifer such as a landfill or surface impoundment and disposal deep below any usable aquifers.

This distinction is well recognized by EPA. The Office of Solid Waste long ago turned over the regulation of the deep, subsurface disposal of hazardous wastes to the Drinking Water Office for regulation under the Underground Injection Control program. Expertise in this area is entirely unrelated to that required to regulate surface or near-surface disposal. Simply put, regulation of a Class I disposal well is very different from that of a Class I landfill.

The same is true on the management side. Others may speak to the merits of surface or near-surface disposal. I run a deep well. Deep well injection is, in fact, one of the most successful disposal technologies, proven over more than forty years of operation. It is a regional technology appropriate only in certain geological conditions. It involves the disposal of solutions at least 95 percent liquid deep into the ground, often a mile or more below the surface. This is a safe technology and should be encouraged.

Conditions governing the operation of deep wells and landfills are as different as the technologies themselves. While liquids should be absolutely minimized from landfill disposal, operators of deep wells must just as conscientiously assure that their wastes are virtually entirely liquid because excessive solids will clog the well and render it useless. Similarly, restrictions on the types of wastes which can be safely landfilled bear no resemblance to those wastes which can be safely handled in deep wells. These separate technologies both deserve stringent regulation, but using separate regulations recognizing their fundamental differences.

Presently there are 114 injection wells which inject liquid hazardous wastes. Most of these facilities are in Texas and Louisiana where geology favors this technology. Only about a dozen of the 114 are commercial facilities; the remainder service only single individual generators. The 114 facilities are presently managing 3.5 billion gallons of hazardous waste a year. (By contrast, so that you can appreciate the magnitude, EPA estimates that incinerators handled only 272 million gallons in 1981.) It is also important to remember that these 114 wells that inject hazardous waste are a very, very small part of the total number of active injection wells in the country. In my state of Texas alone, there are 65,000 injection wells which have operated for several generations and which have compiled an excellent record of environmental safety. If there is ever a case where Murphy's Law has been set aside, it is in the record compiled by injection well disposal.

As with any technology, there can be isolated problems caused by misapplication of the technology as was the case at the federal Rocky Mountain Arsenal in Colorado, but all evidence suggests that injection of liquid hazardous waste is a sound technology. None of the superfund sites were injection wells to my knowledge. Nowhere in the professional literature are injection wells identified as a problem technology.

We should be very careful not to carelessly lump deep wells into the same category as landfills when we talk about restricting "land disposal" of specified hazardous wastes. Denial of the injection well alternative would deprive the nation of 11 percent of its present capacity for no good reason. It would also require solidification and land disposal of the 3.5 billion gallons now being injected and a significant increase in landfill capacity at a time when permitting of new facilities is at a virtual standstill.

Perhaps some of you are unfamiliar with injection well technology. In fact, there has been some confusion between Class I and Class IV wells. Some of the RCRA reauthorization bills would ban disposal in Class IV wells. We would support such a ban. Class IV wells are those which dispose of wastes above or into a drinking water aquifer. Disposal of hazardous waste in such a facility would be irresponsible and should be stopped. None of our members operates such a facility.

What members of our industry do operate are Class I deep wells, regulated under RCRA and the Underground Injection Control Program. Deep well injection is used most frequently to dispose of large quantities of aqueous wastes, including oily waste waters, acids, alkalis and inorganic brines. Frequently it is seen as the most practical, environmentally safe and economical method for disposal of inorganic salt solutions or for wastes with a high content of chlorinated hydrocarbons, which are not easily destroyed with currently available methods. Deep well injection also is preferred for aqueous organic wastes such as formaldehyde or acetone solutions which do not absorb well on activated carbon and are very difficult to treat.

Basically, deep well disposal consists of injecting wastes into underground reservoirs which have been identified as geologically secure. The system requires a suitable geological formation, a well for access to the formation, and a facility above ground for storage and pretreatment of liquid wastes. All wastes are pretreated and tested for compatibility with the receiving formation and other wastes. The selected disposal zone must contain the waste totally. Of prime concern is protection of underground water. The reservoir must be located below potable water aquifers and isolated by thick nearly impermeable, and fractureresistant strata such as shale, limestone or dolomite. Protection of oil, natural gas and other valuable mineral deposits must also be taken into account.

A deep injection well acts as a center of an artificially created pressure gradient which decreases as it gets farther from the well bore. The gradient causes the waste to move horizontally through the disposal formation. After the well is permanently closed off, the artificial pressure gradient dissipates; and the body of waste gradually moves along the existing natural hydrological gradient under the rock formation, far below the potable water aquifers.

The instrumentation for a deep well injection system continuously records the injection pressures and rate for each well. The depth of a well is dependent upon that depth which is necessary to reach a suitable disposal zone and to achieve safe separation from zones containing potable water. On the Gulf coast, for instance, the average depth is approximately 5,500 feet. Fluid migration from the well bore may range to 1 mile depending upon the total quantity of fluid injected (rate and time) and the thickness of the disposal zone.

In the case of our well, the fluid is calculated to migrate a distance of less than 1,500 feet from the well bore assuming an injection rate of 200 gallons per minute at 50 percent of rated capacity for 40 years. I am enclosing a pamphlet developed by our Institute on deep injection wells which I hope can be included in the hearing record.

In short, concerns with pre-RCRA landfills are resulting in poorly-targeted responses. My message to you today is to make important distinctions between deep well disposal and other forms of land disposal and keep in mind we have yet to see our first "RCRA landfill" so we really are only making informed guesses, not looking at real experiences, when we judge whether they will work as expected.

Your deliberations today are especially important because a measure which will soon reach the floor of the other body also contains provisions which are dangerously overbroad and which fail to recognize the enormous burden which they place on the Agency and the time frame which will be required by the Agency to implement them.

You should understand that our industry was in the forefront suing EPA for its tardy compliance with the timetables established in RCRA. We are anxious to have these new protections in place. But we are also, as the industry which has to live with these regulations, vitally interested in having regulations which bear some resemblance to the real world.

Specifically, we have no objection to any changes in the law which would require EPA to look at any specified lists of wastes including that list developed by the state of California. We also have no objection to a requirement that EPA examine all wastes listed under Section 3001. We are anxious to have EPA move ahead with this as quickly as possible. We also recognize that EPA's past record merits Congressional scrutiny.

What seems unreasonable, and in fact, highly dangerous, are provisions which would automatically prohibit the land disposal of any wastes without a public rulemaking. In anxiety with EPA tardiness, the authors of the House bill which has been reported for floor action in the other body have included provisions which would automatically prohibit the land disposal of not only the California list of wastes but all wastes which are listed and, even, identified by their characteristics unless EPA finds, by a date certain, that land disposal of each particular waste is safe.

Let me dismiss the ridiculous first. There is no way that EPA could possibly construct a list of all the wastes which are "characteristic wastes" in order to conduct tests to determine whether they could safely disposed of in various land disposal technologies. Characteristic wastes are not only unique to an industry, but often to a generator, frequently to a single plant, and occasionally to a specific batch of product. Removing that provision should almost be a "technical correction" because of its absurdity.

But to the more "reasonable" provisions of banning, say, the entire California list of wastes from all forms of land disposal in twelve months unless EPA completes a rulemaking finding one or more alternatives to be safe. That too is unreasonable. It is highly likely that EPA could not complete a rulemaking on any of those wastes within twelve months even if it started today, much less on the date of enactment. We agree that this list should be examined and should be a top priority for a federal ban, but we expect that the wastes identified on the list are suitable for some forms of land disposal, most notably for reasons I have mentioned, deep well injection. An automatic ban would be highly disruptive and counterproductive to the goals of proper management of these wastes for reasons which I stated earlier. We strongly encourage your bill to retain its present provisions and resist any efforts to add features which would automatically list wastes without rulemakings. Automatic listing of wastes for prohibition would deprive the regulated community of an opportunity to submit data which could prove the safety of the practices under consideration. Merely through inaction, EPA could ban a certain disposal practice and assure itself that no court challenge could question the technical basis for that determination. Congress has never taken the position that agencies should escape accountability for their actions. And Congress should not begin to do so now.

I hope that these thoughts have been helpful to the Committee. My expertise lies in deep well injection, as my remarks have indicated.

I would be pleased to try to respond to any questions you may have concerning land disposal of hazardous wastes and have been assured by the staff of the National Solid Wastes Management Association that they will be able to provide to the Committee in writing responses to any questions which go beyond my area of expertise. Thank you for this opportunity to be with you today.

Statement on Behalf of the
American Petroleum Institute
before the
Senate Public Works Committee
Subcommittee on Environmental Pollution

June 8, 1983

My name is Richard W. Kreutzen, General Manager of Environmental Affairs for Chevron USA, the domestic operating arm of Standard Oil of California. I am also Chairman of the Program Committee of the American Petroleum Institute (API) that deals with policy development and research associated with groundwater and waste management. This API Committee has the specific responsibility for assessing the impacts of solid and hazardous waste laws and regulations on the industry and providing input to EPA and other government bodies.

API welcomes this opportunity to reaffirm its strong and continued support for appropriate management of hazardous wastes and to offer specific comments concerning S 757, as well as certain other issues related to RCRA reauthorization. The key issues which API wishes to address in this testimony include land disposal, burning and blending, listing of hazardous waste, retrofitting, federal common law, and imminent hazard authority.

Land Disposal

API believes that much of the concern regarding land disposal has originated from environmental damage and injury to human health caused by improperly operated landfills or other indiscriminate dumping of hazardous waste on land. However, by no means has all placement of waste onto land presented such potential for environmental harm. Therefore, we conclude that any legislation intended to address the identified problems should recognize the various circumstances under which wastes are placed onto land. Particularly, we are concerned that the proposals regarding land disposal do not adequately recognize that in certain cases placement of wastes onto land may be appropriate and may even be the most environmentally acceptable technique for handling specific categories of wastes. We want to focus our comments on two specific problems which we believe are presented by this inadequate recognition of the different circumstances under which wastes are placed onto land. First, we believe that as a consequence of viewing all waste placement onto land as land disposal, land treatment tecniques can be improperly regulated. Second, a lack of recognition of the variety of wastes, and circumstances under which wastes are placed onto land, can lead to unrealistic and environmenatlly unjustified automatic bans of land disposal.

Turning to our first concern, the petroleum industry, for a number of years, has been a user and proponent of a waste management process referred to as land treatment. Land treatment is not the simple placement of waste on the land. Rather, it is a technique based on sound scientific and engineering principles and field experience and is designed to transform the waste. This technique involves the carefully controlled and monitored application of appropriate waste on the soil surface and the incorporation of that waste into the upper soil layer. The process uses the microorganisms present in the soil environment and the assimilative capacity of the soil to decompose and contain the applied waste in the incorporation zone (usually the top 6 to 12 inches) of the land treatment facility. The terms "landfarming," "biodisposal farming," "soil cultivation," or "land spreading" have been used to describe this technology, but we believe the term "land treatment" is more appropriate. Land treatment better describes the results - degradation, immobilization, and transformation and differentiates this method of waste placement onto land from landfilling. In landfills, wastes are stored essentially unchanged in man-made or natural excavations, whereas land treatment relies on the dynamic physical, chemical and biological processes occurring in the soil to degrade, immobilize or transform the waste to environmentally acceptable end products.

Land treatment has been practiced by U.S. refineries since 1954 and at least half of all such facilities now successfully use the process to some extent. This practice is also used in European refineries. The petroleum industry has been involved in various research studies to more comprehensively define and quantify operating parameters. Numerous reports by scientists have also stressed the acceptability of the process for specific wastes and site conditions (see attached National Research Council excerpt and API correspondence to EPA). Indeed, House report 98-198 (page 34) to accompany H.R. 2867, as amended, noted that "land treatment would be acceptable for certain wastes." Extensive data gathered by both API and EPA have shown that these land treatment facilities have successfully met appropriate environmental performance standards. Furthermore, land treatment operations are currently and extensively regulated under EPA's land disposal regulations. Therefore, we ask that any legislation enacted recognize that land treatment of certain wastes is the most appropriate and environmentally acceptable technique for handling such wastes. We also ask that any enacted legislation differentiate land treatment, a controlled technique which appropriately degrades or immobilizes wastes, from land disposal, the simple placement of waste onto land.

In addition to our concerns regarding land treatment, API would like to stress our belief that any blanket prohibitions of land disposal are not feasible and are not environmentally justified. Congress should recognize that regardless of the technology employed for treatment of wastes, some residual material will likely remain that must be disposed of on land. For example, incineration of certain types of petroleum industry wastes would still yield an ash material requiring disposal to the land. Even the most modern European waste management systems use land disposal as a complement to other forms of treatment and destruction. The bill referred to this subcommittee (S 757) does not contain language which would require any ill-conceived, automatic prohibitions. We support the approach of this proposal.

Bans of land disposal of wastes must be considered on a case-by-case basis. Factors such as persistence, toxicity, mobility and propensity to bioaccumulate, as well as the existence of alternate treatment, recovery and disposal methods need to be considered. S 757 acknowledges the need to consider such factors, other proposals do not. For example, under Section 5 of H.R. 2867, as amended, EPA would be mandated to make various determinations whether to prohibit land disposal of certain hazardous wastes within a specific time frame, and if such determinations were not made, the hazardous waste would be automatically prohibited from any land disposal. (Section 7 of S 1363 contains a similar provision.) Other legislation, such as H.R., 1632, introduced by Representative John Breaux, categorically would not allow any land disposal of any liquid hazardous waste after a five-year period. Such categorical, unstudied and unfounded, blanket prohibitions do not acknowledge reality or the knowledge we have gained and can obtain regarding the environmental impact of land disposal of waste.

Burning and Blending

Both S 757 and H.R. 2867, as amended, contain provisions dealing with burning and blending of hazardous waste for energy recovery.

The intent of these provisions is to require EPA to develop appropriate notification procedures, facility standards, and labeling and record keeping requirements for those who blend hazardous waste with other fuels or burn such material for energy recovery. While API shares the environmental concerns associated with illegal or inappropriate mixing of hazardous materials with virgin fuels and the potential problems from burning such materials in certain types of facilities, we would like to also stress that legislative mandates should not discourage environmentally sound recycling operations. For example, refineries typically blend small amounts of used oil and in some cases oily hazardous waste in with crude oil or other process feedstocks. The constituents of these streams, in most cases, are similar to the constituents in other refinery streams. Refinery streams, in turn, are processed to produce fuel products which are subject to detailed industry specifications. We note, however, that S 757 would require notification, labeling, and record keeping if any amount of hazardous waste is contained in refinery fuel products which are sold, marketed, or otherwise distributed. Furthermore, if certain used oils became listed hazardous wastes, virtually all fuel products currently manufactured at the refinery could be subject to the labeling requirement.

API urges that RCRA not impose unnecessary regulatory burdens on viable process operations especially because such broad coverage could overwhelm the regulatory framework and render ineffective the original purpose of tracking illegitimate operations. Further, such new initiatives could also be counterproductive to the objectives of the Used Oil Recycling Act of 1980. We would like to suggest that the Senate consider some type of exemption for oily waste materials which are converted along with normal process streams into petroleum derived fuel products at refineries as long as such products are not adversely affected. We would be pleased to provide further background relative to these operations as requested.

Listing of Hazardous Waste

Both S 757 and H.R. 2867, as amended, contain provisions dealing with EPA's procedures for listing or delisting hazardous wastes. We are particularly concerned over the specific language in Section 13 of H.R. 2867, as amended which would give EPA authority to list a waste solely because of the concentration level of a particular substance. In its regulatory framework, the Agency has noted the importance of considering all appropriate factors before listing a waste as hazardous, including persistence, degradability, total quantity, management scenarios, and nature of toxicity. It is important that such factors be thoroughly evaluated before wastes are added to the list in order to avoid unnecessary additions to a system that is already extremely broad due to the Agency's initial failure to regulate based on degree of hazard. The provisions in S 757 appear to provide for appropriate flexibililty in this area.

Potential Retrofitting of Existing Facilities

Section 7(a) of H.R. 2867, as amended, provides that standards regarding groundwater monitoring, liners, and leachate collection systems shall apply to any landfill, surface impoundment, or waste pile unit which receives waste after the applicable date of the statute. This would seem to require retrofitting of existing, active, facilities, a procedure which could actually produce greater potential for environmental harm. In suggesting this particular provision the intent apparently was to ensure that operators who may have previously applied only minor amounts of waste to a facility are required to provide all appropriate controls if they continue to operate. Although House report 98-198 (page 45) does attempt to clarify that the Committee did not intend to require retrofitting of existing facililties, API urges that any legislation clearly conform with the intent reflected in the report.

Section 5(b) of S 757 adequately addresses the concerns for placing appropriate controls on lateral expansions and new units at existing facilities without creating any ambiguity regarding whether retrofitting is required. For this reason, we prefer this approach rather than the language which is currently contained in the House version.

Federal Common Law

API opposes that portion of Section 11 of H.R. 2867, as amended, which seeks to assure that RCRA does not supplant federal common law. This change could have significant legal and financial consequences for owners and operators of hazardous waste disposal facilities. It would allow litigants to bring suits against them in federal courts for abatement of a nuisance or damages even though they may be operating in compliance with all applicable requirements issued pursuant to RCRA.

The federal courts created the doctrine of federal common law in the absence of federal statutes. The assumption is that statutory law controls and the question is whether the statutory scheme addresses the matter at issue. The need for federal common law is questionable in light of the extensive statutory and regulatory requirements in the hazardous waste management area.

Owners and operators of hazardous waste disposal facilities operating in compliance with statutory and regulatory requirements should not be subjected to the ambiguity and uncertainty which would be introduced if the development of separate standards of conduct under amorphous federal common law principles were santioned.

If Congress desired to provide for a federal court remedy for interstate disputes, it could be done without invocation of uncontoured federal common law. The quick fix approach represented by Section 11 of H.R. 2867, as amended, does not address the degree of immunity from challenge, if any, conferred by conformity with RCRA, and does not define the scope of federal common law.

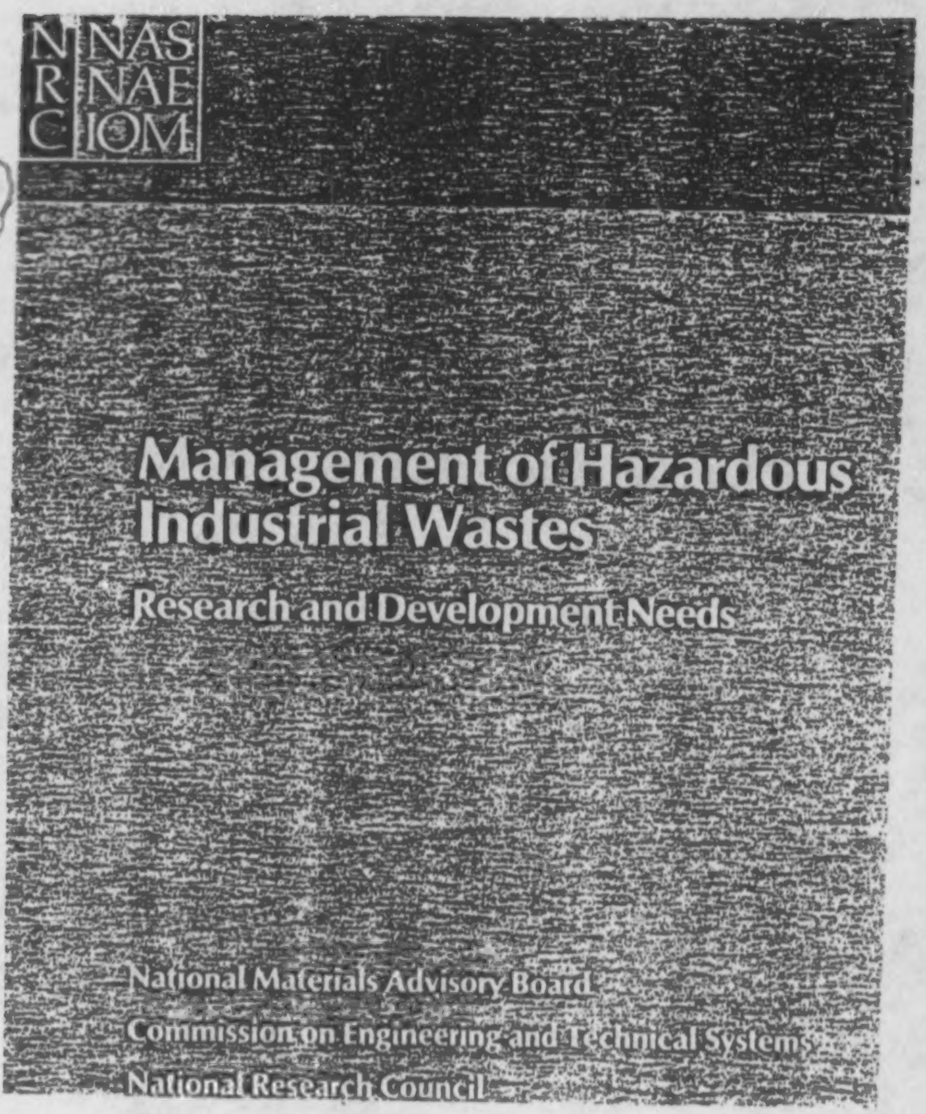
Retroactive Application of Imminent Hazard Authority

The House bill, H.R. 2867, as amended, would amend both Sections 7002 and 7003 of RCRA to allow the EPA Administrtor and any person to bring imminent hazard lawsuits against persons who once generated, transported, or disposed of wastes, but no longer have any contact with the wastes in question. The retroactive expansion of the imminent hazard authority under RCRA is unnecessary because there is an elaborate statutory scheme under the Comprehensive Environmental Response, Compensation and Liability Act (CERCLA) for abatement of hazards.

Sections 104 and 105 of CERCLA provide the Federal government ample authority to undertake response action or secure relief as is necessary to abate environmental threats, as well as to conduct required monitoring, surveys, and testing. Section 107 of CERCLA allows the Federal government to hold responsible parties liable for the costs incurred in cleanup efforts. Despite this remedial authority under CERCLA, the House bill would attempt to shift the focus of cleanup authority for past conduct from CERCLA to RCRA, by making the imminent hazard authority retroactive.

The House amendment responds to the decision in United States v. Wade, 546 F. Supp. 785 (E.D. Pa. 1982). Therein, the court found that Section 7003 of RCRA did not apply to the past conduct of off-site generators of wastes. In finding that the government did not have this authority under RCRA, the court indicated that there was clear authority to proceed with cleanup and liability actions under Sections 104 and 107 of CERCLA. This affirmation of the government's legal authority does not demonstrate a need to amend Sections 7002 and 7003 of RCRA. Instead, it demonstrates that Congress has acted responsibly to adopt measures for dealing with past waste handling practices and that the Justice Department and EPA should be encouraged to enforce the authority designed for that purpose.

In closing, API wishes to again reaffirm its support of Congressional and EPA efforts to streamline and improve the current framework dealing with hazardous waste management. In these efforts, however, it remains important that environmentally acceptable methods of recycling and treatment/disposal not be discouraged. We look forward to working with all interest groups to maintain the dual goals of protection of health and the environment and conservation of valuable material and energy resources.



Management of Hazardous Industrial Wastes

Research and Development Needs

National Materials Advisory Board
Commission on Engineering and Technical Systems
National Research Council

NATIONAL RESEARCH COUNCIL
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MANAGEMENT OF HAZARDOUS INDUSTRIAL WASTES: RESEARCH AND DEVELOPMENT NEEDS

Report of the
Committee on Disposal of
Hazardous Industrial Wastes

NATIONAL MATERIALS ADVISORY BOARD
Commission on Engineering and Technical Systems
National Research Council

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Washington, D.C.
1983

also are needed to determine when a waste is no longer toxic and to establish system performance and goals (i.e., the satisfactory level of detoxification and the degree of treatment that should be achieved).

Although such toxicity assay methods are relevant to other treatment and disposal processes, they are particularly pertinent to biological treatment systems. Biological system performance depends on factors that affect biological activity rather than on the identity or destruction of specific chemicals. Thus, it is important to develop more routine analytical methods that can estimate or measure the toxic pollutant, the pollutant removal that occurs in biological treatment processes, and the impact of toxic pollutants on many forms of biota in the environment (i.e., microorganisms and higher forms of aquatic and terrestrial life). The methods should be suitable for analysis of wastewater, sludge, soil, and the atmosphere.

In summary, several major research efforts are needed to achieve better use of biological treatment processes for the control and detoxification of hazardous industrial wastes. The major research needs are:

1. Identification of the removal mechanisms for components of hazardous industrial wastes so that better treatment processes can be developed and so that transfer of toxic pollutants from one medium to another will be minimized.

2. Evaluation of aerobic thermophilic processes for detoxification of hazardous industrial wastes; such processes may be technically and economically feasible with concentrated organic industrial wastes.

3. Evaluation of the potential of genetically adapted microorganisms to detoxify specific hazardous industrial wastes.

4. Determination of analytical methods, short of fish bioassay methods, that can provide measures of detoxification when biological treatment processes are used; such methods should be capable of routine use.

LAND TREATMENT

Land treatment is the use of a soil system or a vegetation-soil system as the ultimate receiver of a waste. The hazardous waste materials applied to the land may be slurries, sludges, untreated wastes, residues, or solid wastes. Typically, the wastes are mixed with or applied to the surface zone (0-1 ft) of the land. Chemical and biological reactions then break down a portion of the waste, adsorption and fixation occur for other portions, and controlled migration (within drinking water standards) is allowed for certain anionic inorganic fractions of waste (nitrate, chloride, etc.). Land application is not landfilling or waste storage; rather, it is a viable method of long-term treatment. Within a short period after closure of an area used for land treatment, such a site, if designed appropriately, can be used for agricultural production (i.e., the land area is not rendered permanently restricted in use).

It must be recognized that land treatment systems may require substantially more design and monitoring than other more widely used and/or recognized technologies. Active full-scale system monitoring and research are presently being undertaken on air emissions, hazardous organic compound degradation, and closure or long-term agricultural or societal use. However, the technical capability to manage virtually all types of wastes and the generally attractive economics make land treatment viable, even with design and monitoring requirements, in a substantial number of situations.

The key to hazardous waste land treatment systems is the utilization of an overall design approach (Brown and Associates, Inc. 1980, Loehr 1976). This is necessary to land treat the widest variety of hazardous industrial materials under very diverse site conditions. Most wastes, including those containing industrial organic and inorganic compounds, high levels of metals, toxic compounds, priority pollutants at any concentration, salts, acids or bases, pathogens, large liquid volumes, and a variety of other species, have been treated successfully by land application within the assimilative capacity of the soil. At present there are approximately 200 hazardous waste land treatment systems in the United States and over 1000 such systems for nonhazardous industrial waste.

The design of industrial land treatment systems for hazardous wastes centers on two primary tasks: (1) the detailed specification of the land treatment area required and the critical waste constituents controlling this land area and (2) the engineering specification of the land treatment components necessary to implement a complete system.

The first of these tasks involves comprehensive waste characterization (typically 20 to 30 parameters) and the very important assessment of the actual site capabilities (vegetation, topography, groundwater, soils, etc.) for land treatment. Many areas of expertise are necessary to accomplish this first task so that the objective of successful, long-term performance without adverse environmental impact is realized in management of hazardous wastes.

The second design task involves some of the land treatment system components most commonly associated with the land application of all types of waste. The most familiar are the equipment used to spread waste on the land surface (e.g., spray irrigation, tanker hauling and spreading, center pivots, soil injection). However, many more components such as monitoring, land preparation, agricultural or silvicultural crops, storage, transmission, buffer zones, closure and post-closure procedures, security, and aesthetics must be considered in the overall system design. Only with detailed specification, preparation of drawings and/or manuals, and inclusion of all essential components of a land treatment system will this hazardous waste management option be assured of successful, cost-effective, and efficient operation and performance.

Increasing numbers of industrial facilities representing virtually all of the standard industrial categories are adopting land treatment for hazardous wastes because of its very distinctive economic and technical advantages (Brown and Associates, Inc. 1980). Thus, it is correct to state that almost all hazardous wastes (except radioactive materials) can be managed by a land treatment system meeting high levels of environmental and health standards. However, this approach may not be cost-effective in every instance because of the amount of land required. Thus, the economics of land treatment systems as well as the technical design criteria determine whether the land application alternative is selected for management of hazardous wastes.

Based on a comprehensive review of land treatment of hazardous wastes; the committee identified a variety of research and development needs. These are described below in approximate order of importance.

In an emerging technology such as land treatment, information on the behavior of waste constituents in soil from readily available sources, when verified, allows transferability of design criteria. This reduces the need for extensive research efforts on every waste and every site. For each category of industry, waste composition and strength varies considerably from plant to plant. Such variations make experimental determinations of land application loading rates infeasible for each industrial facility. A further disadvantage of the repetitive experimental approach of field tests for each new waste or site is the time for completion. One to three years of testing imposes a substantial economic penalty due to inflation. These and other factors lead to the conclusion that *a priori* design tools are an essential need for this technology.

The assimilative capacity of a terrestrial environment is determined by the rates of degradation and/or the amounts of organics that are degraded, the hazardous waste components that are rendered nonhazardous, and the inorganic contaminants (including metals) that are immobilized. The capacity is variable, depending on specific site conditions, waste properties, environmental conditions, and management. The techniques used to determine the assimilative capacities are not completely standardized, and further research on assimilative capacities is needed so that the design and operation of land treatment facilities can be optimized. Both field and laboratory techniques can be effective in determining assimilative capacities.

The determination of assimilative capacity for organics centers on measurements of half life and other pertinent factors in the loss rate from a soil system. Organic adsorption and mobility are important factors. Immobilization reactions and equilibria in soils are the basis for managing metals and, thus, determine the assimilative capacity when these are present. These same phenomena dictate the response of vegetation to metals and, hence, closure restrictions.

Documented economic studies are also important in the acceptance of a technology even when it is low cost. Thus, economic evaluation research is critical to the broad use of land treatment. Estimates of the design costs for individual components (storage, application systems, monitoring, etc.) and the overall industrial costs for operating hazardous waste land treatment systems should be made. Common economic bases should be used to allow comparison to other hazardous waste technologies.

A wide range of land treatment systems is being used for the management of hazardous wastes even though the costs have not been thoroughly analyzed or published. These systems vary in terms of the type and location of land areas used and the physical and chemical characteristics of the waste treated. The determination of capital and operating costs as well as the technical specifications for these systems will provide a good overview of the economics (mean values and extremes) of land treatment. These data should be organized to establish the effect of size and other relevant variables and should provide regulatory bodies and industry with the information they need on land treatment to make decisions regarding hazardous waste alternatives. Further, a more detailed understanding of land treatment system economics and efficiency can be gained by developing cost curves for the individual equipment and facilities that comprise full-scale industrial systems; information on as many of the existing land treatment sites as possible should be included.

In certain hazardous waste management situations, the combination of land treatment and waste modification in-plant or by pretreatment can cost less than land treatment alone. For example, selective reduction of certain fractions of the waste may minimize the overall cost of a pretreatment and land application system. This balance of options should be examined in detail as a mechanism for reducing the cost of hazardous waste management by land treatment.

The plant-soil system has a unique capability for treating hazardous wastes. The limitation on these capabilities is that some constituents require more land area than others, based on the mass present in the waste and the assimilative capacity of the given plant-soil system. Research is needed to establish what pretreatment or in-plant options are available to reduce the amounts of those constituents that most influence the amount of land required. With the definition of available pretreatment technology, the levels of removal and the corresponding costs must be documented. Comparisons can then be made between these pretreatment or process modification expenditures and land treatment costs to establish a cost-effective combination that will meet all environmental standards.

The design criteria and procedures exist to land treat almost any industrial waste (hazardous or nonhazardous). However, many industries and plant personnel have only a vague concept of land treatment and, hence, are unaware of this technology for their specific use. To solve this problem, a series of industry-specific documents and other information transfer aids are needed. Wide distribution and use of such documents should increase the use of land treatment or pretreatment and land application for hazardous wastes.

Land treatment is currently used most widely in the food and petroleum industries. There is a need to identify, with some priority, other waste categories that can be treated by this technology. Since a very large number of categories will probably be involved, this research should focus on those designated as having the greatest impact with respect to hazardous industrial wastes.

In conclusion, several major research and development investigations are necessary to broaden significantly the use of land treatment for hazardous wastes. These major needs are:

1. Substantial expansion of the system design data base for land treatment with an emphasis on transferable laboratory-scale information and verification in selected field-scale systems.
2. Documentation of the economics of full-scale hazardous waste land treatment systems, including costs of the individual field components of the total system.
3. Technical and economic consideration of process modifications or pretreatment in combination with land treatment to yield a lower total system cost than land treatment alone.

OCEAN ASSIMILATION

For many years industrial waste has been dumped into the oceans. All too often, this has been done indiscriminately, with little thought given to regional characteristics, waste type, oceanic conditions, and the presence of endangered species. Excessive levels of hazardous pollutants in near-shore locations, increased concentrations of toxicants in marine life, and curtailed recreational and commercial opportunities have resulted.

Various nations have responded to the threat, and some, including the United States, have simply banned ocean waste disposal operations. It is the opinion of this committee that the complete ban that was to be effective December 31, 1981, should be reconsidered. A cohesive research and development program should be designed and implemented to identify conditions whereby the oceans could be used for disposal without harm to

American Petroleum Institute
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J.ELDON RUCKER
(202) 457-7087

June 10, 1981

Mr. Mark Greenwood
Attorney, Water and Solid
Waste Division (A-131)
U.S. Environmental Protection Agency
401 M Street, S.W.
Washington, D.C. 20460

Dear Mark:

Following up on our meeting of May 15, the American Petroleum Institute (API) is pleased to submit the enclosed information regarding analytical techniques used to verify the degradation and/or immobilization of hazardous wastes placed in land treatment facilities.

As you know, land treatment has been practiced by the petroleum industry for at least twenty-five years without any reported significant environmental problems. In the past few years, land treatment of biodegradable petroleum wastes has increased substantially, with well over half of all petroleum refining wastes now being managed in this fashion.

EPA has expressed concern over the potential for migration of waste constituents following land application. In the case of petroleum wastes, extensive information exists to show that such migration has not been a problem, and a few relevant references are attached for your review.

Some of the key conclusions relative to migration potential are as follows:

1. By optimizing application rates and controllable environmental parameters, biodegradation of hydrocarbons may be maximized, thus making land treatment an environmentally acceptable alternative for disposal of oily sludge (Attachment 1).

2. To our knowledge, none of these [petroleum industry] land treatment facilities, which are located in many parts of the country, have given rise to human health or environmental damage incidents. Furthermore, extensive monitoring of field sites has demonstrated that certain types of oily wastes are transformed in an aerobic environment to a less hazardous or non-hazardous composition (Attachment 2).

3. Applied oily wastes do not migrate down through the soil, and, therefore, pose no threat of groundwater contamination. Soil from a land treatment area in use for ten years at Texaco's refinery near Convent, Louisiana was subjected to the extraction procedure and the metals were not found in sufficient concentrations to declare the soil a hazardous waste (Attachment 3).

4. Subsurface migration of oil or heavy metals does not appear to occur to a significant degree in a properly managed landfarm. Data to support the lack of migration are provided in tables (Attachment 4).

5. No migration of hydrocarbons or heavy metals was seen below 15 cm beneath the test plot tilled depth after multiple sludge applications in excess of 3000 and 1800 m^3/hectare at the two plots (Attachment 5).

6. It is concluded that, provided some simple safeguards are observed, sludge farming is ecologically the most suitable and cost-effective method of disposal for normal oily sludge and for soil that has been accidentally contaminated with oil (Attachment 6).

API believes that experience and research conducted over the last several years have shown land treatment to be the most effective and environmentally sound method for handling many petroleum industry wastes. In an effort to respond to your data request, we have attached a limited number of references, but we would be glad to forward further information if you desire. In addition, we would note that chapters 7 and 9 of the Agency's Technical Resource Document (SW-874), entitled "Hazardous Waste Land Treatment," provide additional information that bears on these issues.

Should you have any questions regarding the above, or should you desire further information, please feel free to call me at 457-7087.

Very truly yours,

J.E. Rucker

Attachments

List of Attachments

Attachment 1: "Factors Influencing the Biodegradation of API Sludges Applied to Soils," K.W. Brown et al, Presented at EPA Seventh Annual Research Symposium, March 16-18, 1981.

Attachment 2: "Identification of Hazardous Waste for Land Treatment Research," Jean Berkowitz et al, Presented at EPA Seventh Annual Research Symposium, March 16-18, 1981.

Attachment 3: Copies of three papers given at N.J. Hearing on October 20, 1980 (Chevron, Exxon, Texaco) transmitted previously to EPA by G.W. Grove of Exxon.

Attachment 4: "Treatment of Oily Wastes by Landfarming," R.L. Huddleston, RSMA Meeting on Land Cultivation in Houston, January 18-19, 1978.

Attachment 5: "Oily Waste Bio-oxidation in Soil", R.A. Weldon, 86th AICHE Meeting in Houston, April 2, 1979.

Attachment 6: CONCAWE Publication entitled "Sludge Farming: A Technique for the Disposal of Oily Refinery Wastes," March, 1980.

6-15-81
JEK

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United States Senate
COMMITTEE ON ENVIRONMENT AND PUBLIC WORKS
WASHINGTON, D.C. 20510

June 9, 1983

Mr. Richard W. Kreutzen
General Manager
Environmental Affairs
Chevron, USA
Suite 1204
1700 K Street, N. W.
Washington, D. C. 20006

Dear Mr. Kreutzen:

As a follow up to the testimony you presented before the Subcommittee on Environmental Pollution on June 8, 1983, regarding the Solid Waste Disposal Act reauthorization, I would appreciate your views on one of the proposed amendments.

Specifically, I have been concerned about providing the Environmental Protection Agency with an appropriate amount of flexibility to administer the provision that would mandate the prohibition of land disposal of certain hazardous wastes. It has been suggested that the language in S. 757 be modified to require a ban on land disposal of waste with concentrations of highly toxic or mobile constituents, if it cannot be shown that the land disposal method in question would guarantee no migration of those constituents from the site for 1,000 years. I would appreciate your comments on the feasibility of such an approach.

As you are aware, the Subcommittee intends to conduct markup sessions on S. 757 on June 23 and 24. If possible, I would appreciate having the benefit of your comments by June 17, 1983.

Thank you for your cooperation.

With best wishes, I am,

Truly,

Jennings Randolph

Jennings Randolph
Ranking Minority Member

Chevron

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R. W. Kreutzen
General Manager
Environmental Affairs

June 20, 1983

The Honorable Jennings Randolph
United States Senator
Ranking Minority Member
Committee on Environment
and Public Works

Dear Senator Randolph:

I appreciate your inquiry regarding the testimony I presented on S.757 before the Subcommittee on Environmental Pollution on June 8, 1983, and I welcome this opportunity to respond to your concern for appropriate EPA flexibility to administer the land disposal restriction of certain hazardous wastes.

Chevron believes that land disposal of highly toxic, highly mobile wastes which are either persistent in the environment or bioaccumulative can present a significant and, in many cases, an avoidable hazard to the environment. We understand the concerns which have prompted the efforts to restrict such wastes from land disposal. Consequently, Chevron has already assisted the State of California in the development of its land disposal ban regulations, which we believe are effective and well-reasoned, and which can be practically implemented.

We believe that S.757 currently would give the EPA significant and appropriate flexibility to administer land disposal limitations. However, the suggested amendment you refer to in your letter -- to include the criterion requiring a 1000-year guarantee of no waste migration from the disposal site -- is simply not realistic. State-of-the-art techniques provide mechanisms to analyze and assess the long-term integrity of waste disposal sites but do not provide mechanisms to guarantee the integrity of any waste management system over such an extended period of time. Choosing a 1000-year guarantee period as a general criterion for restricting land disposal is an arbitrary approach to an issue which should be dealt with on a case-by-case basis. If a given waste were banned from land disposal due to the "1000-year guarantee" criterion, some alternative technology will need to be employed to manage the waste. Short of total reuse or recycling, some residue will still remain after the waste is treated, incinerated, or otherwise managed, and land disposal might be the only feasible method for handling such residue. Even in this case, no guarantee can be given regarding potential future waste migration over such an extended period of time as 1000 years and, as in the case of fly ash containing metals, the concentrated, more mobile residue may pose a greater environmental risk than the original waste. Adopting the 1000-year criterion is, in effect, an automatic ban on land disposal. Regulations must recognize the variety of wastes, and circumstances under which wastes are placed on or into land, in order to be realistic and environmentally justified.

We believe your concern for long-term appropriate waste management is already addressed both in S.757 criteria for restricting land disposal and in existing EPA regulations regarding disposal site post-closure care. Current S.757 language requires that, for each hazardous waste, EPA review whether any given land disposal method will not be protective of human health and the environment, taking into account, among other criteria, toxicity, mobility, and persistence. Whether or not a given hazardous waste may present a problem in the long term would be evaluated for a given disposal method and a given waste's relative toxicity, mobility, and persistence in the environment. Further long-term protection is provided by existing EPA hazardous waste regulations which have established a post-closure care period, including groundwater monitoring, that extends for 30 years after closure at a land disposal facility but allows for variances to increase that time period. EPA promulgated these regulations establishing that post-closure care period on May 19, 1980 (45 FR 33066).

My own recent experience in reviewing advanced European waste management facilities leads me to conclude that land disposal is an integral part of an effective waste management system. In March 1983, I was one of a group organized by the California Foundation on the Environment and the Economy (CFEE) and the Sierra Club which conducted a study project in Western Europe. The purpose of the study was for a group of California public and private decision makers to conduct an onsite examination of the Western European experience with alternatives to the land disposal of hazardous waste. In their study report, CFEE concluded that an effective waste management system included land disposal as well as incineration and chemical-physical treatment processes.

As a final comment, I would like to address a particular concern of the petroleum industry when faced with the land disposal ban mechanisms, a concern specifically raised by S.757. We feel that although S.757 provides the Administrator proper flexibility in imposing bans, the need to review waste management techniques is too broadly defined. There is in S.757 a lack of recognition of the different circumstances under which wastes are placed on or into land. We believe that as a consequence of viewing all waste placement on or into land as land disposal, the Administrator is improperly required to view land treatment techniques as land disposal. For over 30 years, as an industry, we have been a user and proponent of a waste management process referred to as land treatment or landfarming. Land treatment should not be regulated as a land disposal method. Land treatment is not the simple placement of waste on or into the land. Rather, it is a technique based on sound scientific and engineering principles and field experience and is designed to transform the waste into harmless and immobile components.

Land treatment involves the carefully controlled and monitored application of appropriate waste on the soil surface and the incorporation of that waste into the upper soil layer. The process uses the microorganisms present in the soil environment and the assimilative capacity of the soil to decompose and contain the applied waste in the incorporation zone (usually the top 6 to 12 inches) of the land treatment facility. Land treatment degrades, immobilizes, and transforms; landfilling, on the other hand, is where wastes are stored essentially unchanged in man-made or natural excavations. Land treatment relies on the dynamic physical, chemical, and biological processes occurring in the soil to degrade, immobilize or transform the waste to environmentally acceptable end products.

Land treatment has been practiced by U.S. refineries since 1954 and at least half of all such facilities now successfully use the process to some extent. This practice is also used in European refineries. Based on our experience, we believe this waste management technique should not be indiscriminately swept into statutory mandates for land disposal bans.

Thank you once again for this opportunity to respond to your inquiry. If you or your staff should have any questions or require any further information, please contact me.

Respectfully,

Dick Kreutzen

R. W. Kreutzen

WGS:sam

HAZARDOUS WASTE TREATMENT COUNCIL

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TESTIMONY OF

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ON BEHALF OF
THE HAZARDOUS WASTE TREATMENT COUNCIL

BEFORE THE
SUBCOMMITTEE ON ENVIRONMENTAL POLLUTION
COMMITTEE ON ENVIRONMENT AND PUBLIC WORKS
U.S SENATE

ON THE
REAUTHORIZATION OF THE RESOURCE CONSERVATION AND RECOVERY ACT

JUNE 8, 1983
WASHINGTON, D.C.

Mr. Chairman, Members of the Committee, my name is Nelson Mossholder. I am the Technical Director of the Stablex Corporation, a member company of the Hazardous Waste Treatment Council. The Treatment Council is a national association of firms which employ a wide variety of high technology treatment methods in the management of hazardous wastes. Stablex Corporation specializes in the fixation of metal-containing hazardous wastes from a variety of industrial processes. I appreciate the opportunity to testify before this Committee, and am accompanied this morning by Mr. Richard Fortuna, Executive Director of the Treatment Council.

TREATMENT COUNCIL PERSPECTIVE ON HAZARDOUS WASTE MANAGEMENT

The Council believes that hazardous wastes should be properly managed in the first instance through the use of any one of several treatment technologies including: recycling, reclaimation, neutralization, fixation, chemical and biological treatment, and incineration or other forms of thermal treatment; and that treatment technologies should all be required to meet stringent minimum levels of public health protection. In addition, the treatment of hazardous wastes itself should be minimized through recycling, process modifications, and other techniques which actually reduce the volume of hazardous waste generated each year (Appendix I).

While the Treatment Council recognizes a role for land disposal of hazardous wastes under certain conditions, it is

CLEARLY THE MANAGEMENT PRACTICE OF LAST RESORT. LAND DISPOSAL CAN BE ALLOWED AS RECOMMENDED BY THE OFFICE OF TECHNOLOGY ASSESSMENT (OTA), FOR CERTAIN WASTES: RESIDUALS FOM TREATMENT PROCESSES; WASTES THAT HAVE BEEN CHEMICALLY FIXED TO RENDER THEM NON-HAZARDOUS; PRETREATED OR STABILIZED WASTES THAT HAVE BEEN DETOXIFIED AND DELISTED; AND WASTES THAT ARE NOT AMENABLE TO ANY PRESENT FORM OF TREATMENT.

THE TREATMENT COUNCIL WOULD LIKE TO FOCUS ITS COMMENTS THIS MORNING ON TWO ISSUES OF PARTICULAR IMPORTANCE IN THE REAUTHORIZATION OF THE RESOURCE CONSERVATION AND RECOVERY ACT (RCRA): THE NEED FOR LAND DISPOSAL PROHIBITIONS, AND THE REGULATORY EXEMPTION FOR FACILITIES THAT BURN, BLEND, AND DISTRIBUTE HAZARDOUS WASTES AND WASTE MIXTURES OSTENSIBLY FOR THE PURPOSE OF ENERGY RECOVERY.

THE NEED FOR LAND DISPOSAL PROHIBITIONS

ABOVE ALL ELSE IN THIS REAUTHORIZATION THE MEMBERS OF THE HAZARDOUS WASTE TREATMENT COUNCIL BELIEVE THAT THE LEGISLATION BEFORE THIS COMMITTEE MUST ESTABLISH A CONSCIOUS NTIONAL POLICY THAT PROHIBITS THE LAND DISPOSAL OF CERTAIN HAZARDOUS WASTES, AND THEREBY CREATES THE CONDITIONS IN WHICH HAZARDOUS WASTES WILL BE PERMANENTLY TRANSFORMED OR DESTROYED, AND THE PUBLIC HEALTH PROTECTED FROM THE INHERENT UNCERTAINTY AND UNRELIABIITY OF CONTINUED RELIANCE ON LAND DISPOSAL OF THESE WASTES.

MR. CHAIRMAN, UNLESS SUCH A POLICY IS INSTITUTED THERE

IS LITTLE IF ANY PROSPECT OF ENDING THE ALL-TO-FAMILIAR CYCLE OF WASTE GENERATION, LAND DISPOSAL, AND THE CREATION OF YET ADDITIONAL SUPERFUND SITES, WHICH ALREADY EXIST IN EACH OF THE 50 STATES.

THE FACT THAT LAND DISPOSAL SITES ARE THE HISTORICAL AND MOST PREVALENT CAUSE OF THIS NATION'S HAZARDOUS WASTE SITE PROBLEM IS NO ACCIDENT. THE FACT THAT 65 OF THE FIRST 115 SUPERFUND SITES WERE LANDFILLS AND OTHER LAND DISPOSAL FACILITIES WHICH ACCEPTED HAZARDOUS AND SOLID WATES SHOULD COME AS A SURPRISE TO NO ONE.

OVER EIGHTY PERCENT OF THIS NATION'S WASTES HAVE BEEN AND CONTINUE TO BE LAND DISPOSED. THE BOTTOM LINE EXPLAINATION FOR THIS OVERWHELMING PREFERENCE IS THE BOTTOM LINE. LAND DISPOSAL HAS BEEN AND CONTINUES TO BE LESS EXPENSIVE THAN MOST ALTERNATIVE FORMS EVEN THOUGH IT IS LESS PROTECTIVE THAN PROPER TREATMENT.

IT FREQUENTLY TAKES ONLY A FEW MONTHS TO BRING A LANDFILL ON LINE ONCE CONSTRUCTION HAS BEGUN. FOR A TREATMENT FACILITY THE TIME PERIOD IS USUALLY SEVERAL YEARS. IT IS EASIER TO DIG AN UNLINED, UNSECURED HOLE AND BURY WASTES THAN IT IS TO MAKE INDIVIDUAL REFINEMENTS FOR EACH SHIPMENT TO INSURE OPTIMAL TREATMENT OF A GIVEN TOXIC WASTE.

THE FINAL LAND DISPOSAL REGULATIONS, WHICH WERE PROMULGATED ON JULY 26, 1982, SUBJECTED LANDFILLS TO LINER, LEACHATE COLLECTION AND OTHER SUBSTANTIVE REQUIREMENTS FOR THE FIRST TIME. EVEN SO, GROUNDWATER MONITORING IS NOT REQUIRED IN ALL CASES, NOR ARE DUAL LINERS. IN ADDITION, THESE REGULATIONS PROVIDED A VERY GENEROUS GRANDFATHERING OF "EXISTING PORTIONS" OF PRESENT LANDFILLS UNDER LESS STRINGENT STANDARDS, AND FAIL TO REQUIRE CORRECTIVE ACTION OR GROUNDWATER MONITORING AT THOSE LANDFILLS WHICH CLOSED PRIOR TO THE EFFECTIVE DATE OF THE REGULATIONS---A MOVE WHICH, UNLESS CHANGED, INSURES THAT "SUPERFUND" AND THE TAXPAYERS WILL YET AGAIN PICK UP THE TAB FOR A FAILED LANDFILL.

WHEN A PRESENT DAY LANDFILL, WHICH HAS BEEN FINALLY PERMITTED, CLOSES AND STAYS CLOSED FOR ONLY 5 YEARS WITHOUT INCIDENT, ALL LIABILITY TRANSFERS TO THE POST-CLOSURE LIABILITY TRUST FUND, AND IN TURN TO THE TAXPAYERS IN THE EVENT THAT THE TRUST FUND CANNOT COVER THE COSTS OF LIABLITY CLAIMS AGAINST IT AND OTHER SUCH FACILITIES.

EVEN WHERE RESTRICTIONS HAVE BEEN PUT INTO PLACE, THEY HAVE BEEN EASILY CIRCUMVENTED. I REFER TO THE PRESENT BAN ON THE LAND DISPOSAL OF CONTAINERIZED LIQUID HAZARDOUS WASTE. THIS BAN, WHICH WAS INTENDED TO PROHIBIT THE DISPOSAL OF DRUMS CONTAINING LIQUID HAZARDOUS WASTES HAS DONE LITTLE MORE THAN PROMPT DISPOSERS TO ADD LARGE AMOUNTS OF SAWDUST OR KITTY LITTER TO THEIR WASTES PRIOR TO LANDFILLING, RATHER THAN REMOVING THESE WASTE TO TREATMENT FACLITIES. THE NET EFFECT HAS BEEN TO RAISE LANDFILL COST FOR THESE READILY TREATABLE WASTES BY $5.00 PER BARREL.

EVEN WHERE PRACTITIONERS OF TREATMENT HAVE BEEN ABLE TO PRICE THEIR SERVICES COMPETITIVELY, THEY HAVE FREQUENTLY BEEN UNDERCUT BY LAND DISPOSAL FACILITIES THAT WERE ABLE TO CUT THEIR PRICES SUBSTANTIALLY--IN ONE INSTANCE BY 70%.

THE MEMBERS OF THE HAZARDOUS WASTE TREATMENT COUNCIL BELIEVE THAT THIS RELATIVE "FREE RIDE" FOR LAND DISPOSAL MUST COME TO AN END. NOT SIMPLY FOR THE SAKE OF TREATMENT, BUT FOR THE REASON THAT WITH TREATMENT YOU HAVE CERTAINTY--CERTAINTY IN KNOWING WHAT WAS DONE TO THE WASTE, AND CERTAINTY IN KNOWING THAT THE WASTE WILL NOT SURFACE FOR FUTURE GENERATIONS TO COPE WITH. WITH LAND DISPOSAL YOU ARE FORCED TO LIVE WITH UNCERTAINTY FAR INTO THE FUTURE, IF NOT FOREVER.

WE BELIEVE THAT THIS NATION DESERVES A BETTER FATE THAN IT HAS EXPERIENCED. OUR MEMBERS AND OTHER PRACTITIONERS OF TREATMENT ARE PREPARED WITH BOTH THE TECHNIQUES AND CAPACITY TO DO SO. IN FACT, A RECENT EPA CONTRACTOR REPORTED SIGNIFICANT UNUSED CAPACITY IN OUR INDUSTRY. OUR OWN MEMBERS REPORTED A RANGE OF 30-50 PERCENT UNUSED CAPACITY IN 1982.

THE CONGRESS AT THIS MOMENT HAS A UNIQUE OPPORTUNITY TO MAKE A CLEAR AND RATIONALE BREAK WITH PAST POLICIES AND TO CORRECT THE DEFICIENCIES THAT HAVE CAUSED AND WILL CONTINUE TO CREATE LAND DISPOSAL SITE PROBLEMS. GIVEN THE APPROACHES THAT HAVE BEEN TAKEN IN THE PAST, AND THE

REPETITION OF EVENTS THAT SIMPLY CONTINUE INADEQUATE CONTROLS ON LAND DISPOSAL, THERE ARE VERY FEW NEW OPTIONS LEFT TO TRY.

THE TREATMENT COUNCIL BELIEVES THAT THE TIME HAS COME, FOR A NATIONAL POLICY WHICH PROHIBITS THE LAND DISPOSAL OF CERTAIN HAZARDOUS WASTES THAT, REGARDLESS OF PHYSICAL STATE, CANNOT BE CONTAINED BY LANDFILLS OR OTHER LAND DISPOSAL FACILITIES. THE COUNCIL URGES THIS COMMITTEE TO TAKE THIS ADDITIONAL STEP IN THE CONSIDERATION OF S.757. SPECIFICALLY, UNTREATED METAL-FINISHING WASTES, HALOGENATED SOLVENTS AND PESTICIDES, HIGH ACID WASTES, AND PCB-CONTAINING WASTES SHOULD BE PROHIBITED FROM LANDFILLS. THESE SUBSTANCES ARE THE ARCHTYPICAL GROUNDWATER CONTAMINANTS AT THE NATION'S "SUPERFUND" SITES, AND ARE AMONG THE SUBSTANCES THAT COULD NOT BE CONTAINED EVEN BY DUAL-LINED LANDFILL FACILITIES AS THE PRINCETON STUDY REVEALED.

THE COUNCIL ALSO BELIEVES THAT FOR SUCH PROHIBITIONS TO BE IMPLEMENTED IN A TIMELY AND MEANINGFUL MANNER, THE PRESUMPTION MUST BE IN FAVOR OF PROHIBITING THESE WASTES UNLESS THE AGENCY CAN MAKE A DETERMINATION TO THE CONTRARY. ANY GRANT OF OPEN DISCRETION OR GENERAL DIRECTIVE IS AN INVITATION FOR INACTION. WHILE A DISCRETIONARY APPROACH WAS APPROPRIATE WHEN RCRA WAS FIRST ENACTED IN 1976, THE ACCRUED EXPERIENCE AND EVALUATIONS OF THE OTA, CONGRESS' OWN RESEARCH ARM; THE NATIONAL ACADEMY; THE STATE OF CALIFORNIA; THE EPA ITSELF; AND OUR OWN MEMBERS BEAR WITNESS TO THE NEED FOR AN EXPLICIT POLICY PROHIBITING SPECIFIC WASTES UNDER STRUCTERED

PRESUMPTIONS AND TIME FRAMES. IN ADDITION, ALL HAZARDOUS WASTES LISTED OR IDENTIFIED UNDER RCRA SHOULD BE SIMILARLY REVIEWED OVER THE NEXT FEW YEAR TO DETERMINE WHAT OTHER WASTES SHOULD NOT BE LAND DISPOSED.

WHILE THE AGENCY MAY USE ITS DISCRETION WISELY AND IN A TIMELY MANNER, ONE NEED LOOK NO FURTHER THAN THE NUMBER OF NEW WASTES LISTED SINCE THE ORIGINAL RCRA REGULATIONS WERE PROMULGATED TO SEE THE FRUITS OF UNLIMITED DISCRETION. SINCE MAY, 1980 EPA HAS DELISTED OVER 250 DIFFERENT WASTE STREAMS. DURING THAT SAME PERIOD, NOT ONE NEW WASTE STREAM HAS BEEN LISTED, ONLY ONE HAS BEEN PROPOSED, AND THAT IS FOR DIOXIN. IN ADDITION, THE SPECIAL WASTE CATEGORY THAT WAS ESTABLISHED IN THE 1980 RCRA AMENDMENTS FOR THE PURPOSE OF POSSIBLE FUTURE LISTING OF THESE WASTES HAS AGAIN FAILED TO YIELD ONE NEW WASTE STREAM LISTING IN 3 YEARS. FEW OF THE STUDIES ON THESE "SPECIAL" WASTES HAVE INITIATED, LET ALONE THE ACTUAL LISTING OF THESE WASTES.

IN MANY RESPECTS, THE SAME RECOGNITION THAT BROUGHT ABOUT THE ENACTMENT OF CONSISTENT NATIONAL STANDARDS FOR THE PROTECTION OF PUBLIC HEALTH FROM HAZARDOUS WASTE MANAGEMENT PRACTICES IN 1976 ARE IN EVIDENCE TODAY, WE SIMPLY KNOW A GREAT DEAL MORE ABOUT THE NATURE AND SCOPE OF THE HAZARDOUS WASTE PROBLEM AND ABOUT WHAT WORKS AND WHAT DOES NOT. AS IN 1976, IT IS IN THE NATIONAL INTEREST TO ESTABLISH A CONSISTENT POLICY THAT RELECTS OUR DESIRE TO PREVENT A REPETITION OF PAST PRACTICES AND THAT INSURES CONSISTENCY

FROM ONE STATE TO THE NEXT. WHILE THE TREATMENT COUNCIL APPLAUDS THE ACTIONS OF THE STATE OF CALIFORNIA AND OTHERS THAT ARE EMBARKING UPON A SIMILAR COURSE, THE ONLY WAY TO PREVENT THE CREATION OF "WASTE HAVENS" AND THE SHIFTING OF HAZARDOUS WASTES TO THE AREA OF LEAST CONTROL IS TO INSURE THAT SUCH APPROACHES ARE REFLECTED IN NATIONAL POLICY AS WELL. NOT ONLY IS THE PUBLIC PROVIDED WITH A CONSISTENT LEVEL OF PUBLIC HEALTH PROTECTION, BUT IN ADDITION, THOSE WHO GENERATE, TREAT AND DISPOSE OF HAZARDOUS WASTES WILL ALSO HAVE A CONSISTENT SET OF REGULATORY REQUIREMENTS AND EXPECTATIONS IN THIS REGARD. IT IS OUR SINCERE HOPE THAT THE COMMITTEE WILL GIVE EVERY CONSIDERATION TO THIS APPROACH IN ITS DELIBERATIONS ON THIS MOST IMPORTANT PROVISION.

BURNING FOR ENERGY RECOVERY LOOPHOLE

IN LAST YEAR'S RCRA REAUTHORIZATION THE COMMITTEE APPROVED A PROVISION WHICH CLOSED THE PRESENT REGULATORY LOOPHOLE FOR THOSE WHO BURN, BLEND OR DISTRIBUTE HAZARDOUS WASTES FOR THE PURPOSE OF ENERGY RECOVERY. THE TREATMENT COUNCIL APPLAUDS THIS ACTION AND REQUESTS THAT THE PROVISION BE RETAINED IN THE SAME FORM IN THIS YEAR'S BILL.

THIS IS THE SINGLE LARGEST LOOPHOLE UNDER RCRA AT THE PRESENT TIME, ACCOUNTING FOR OVER 20 MILLION METRIC TONS OF HAZARDOUS WASTES THAT ARE BEING MIXED WITH INDUSTRIAL BOILER FUELS AND BURNED FOR THE PURPOSE OF ENERGY RECOVERY WITHOUT REGARD TO THE DESTRUCTION EFFICIENCY OF THE COMBUSTION UNIT OR THE WASTE CONTENT OF THE FUEL. AN ADDITIONAL, ALTHOUGH

UNQUANTIFIED AMOUNT, IS BEING MIXED WITH RESIDENTIAL HEATING OIL AND/OR USED OIL AND BEING SOLD TO UNSUSPECTING CUSTOMERS AS VIRGIN HEATING OIL. AS THE RECENT ARTICLES IN THE "NEW YORK TIMES" HAVE DOCUMENTED, THIS PRACTICE IS BOTH PERVASIVE AND A BONAFIDE HAZARD TO THE CONSUMER.

AT THE SAME TIME, THOSE WHO BURN HAZARDOUS WASTES FOR THE PURPOSE OF DESTRUCTION, SUCH AS INCINERATION AND WET OXIDATION, ARE SUBJECT TO A VERY STRINGENT DESTRUCTION EFFICIENCY STANDARD OF 99.99%, AND MUST CONTROL NUMEROUS OTHER OPERATING PARAMETERS INCLUDING WASTE FEED RATE, BURNING TEMPERATURE, AND RESONANCE TIME WITHIN THE COMBUSTION CHAMBER. WHILE THESE STANDARDS DO PROVIDE ADEQUATE LEVELS OF PUBLIC HEALTH PROTECTION FOR MOST WASTES, THEY ARE DIRECTED AT ONLY SOME 4.0 MILLION TONS OF HAZARDOUS WASTE THAT ARE ACTUALLY INCINERATED EACH YEAR, AS COMPARED WITH THE UNREGULATED BURNING OF OVER 20 MILLION TONS IN INDUSTRIAL BOILERS, FURNACES AND CEMENT KILNS.

ABOVE ALL ELSE, THOSE WHO ENGAGE IN THE TREATMENT, DISPOSAL OR DESTRUCTION OF HAZARDOUS WASTES MUST BE REQUIRED TO PLAY BY THE SAME RULES. IF NOT, THEN THE SYSTEM HAS RENDERED ITSELF MEANINGLESS. ONE CANNOT IMPOSE STRINGENT AND NECESSARY STANDARDS UPON THE INCINERATION OF HAZRDOUS WASTES, WHILE AT THE SAME TIME GRANTING A WHOLE SCALE EXEMPTION TO A PRACTICE THAT IS CONDUCTED WITHOUT REGARD TO DESTRUCTION EFFICIENCY OR PUBLIC HEALTH PROTECTION. WHETHER HAZARDOUS WASTE IS BURNED FOR DESTRUCTION OR ENERGY REOCERY, IF DONE

IMPROPERLY OR WITHOUT CONTOLS, THE NET IMPACT ON PUBLIC HEALTH FROM SUCH EMISSIONS WILL BE SIMILARLY ADVERSE.

IN CRAFTING THIS PROVISION, THE TREATMENT COUNCIL WOULD ALSO URGE THAT NO DISTINCTION OR SEPERATE STATUTORY SCHEME BE ESTABLISHED FOR THE CONTROL OF MIXTURES OF HAZARDOUS WASTE AND USED OIL, OR USED OIL ALONE AS HAS BEEN ADVOCATED BY SOME. AS THE RECENT "NEW YORK TIMES" ARTICLES CONFIRM, USED OIL OR WASTE OIL IS NOT ONLY A COMMON MEDIUM FOR THE SPURRIOUS DISPOSAL OF HAZARDOUS WASTES, IT IS THE MEDIUM. ANY ATTEMPTS TO EVADE PROPER CONTROLS THROUGH SEPERATE AND LESS STRINGENT CONTROLS ON USED OIL OR USED OIL MIXTURES WOULD VITIATE THIS VITAL PROVISION.

CONCLUSION

IN CONCLUSION, MR. CHAIRMAN, IT IS CLEAR TO THE MEMBERS OF THE TREATMENT COUNCIL THAT OUR NATION'S HAZARDOUS WASTE PROBLEMS WILL NOT END WITH THE ENACTMENT OF THIS LEGISLATION NO MATTER HOW PROTECTIVE OF PUBLIC HEALTH IT ATTEMPTS TO BE. THERE WILL ALWAYS BE PEOPLE WHO WILL NOT OBEY THE LAW OR WILL TRY TO BEAT THE SYSTEM IN ONE WAY OR ANOTHER. AFTER ALL, HAZARDOUS WASTES ARE LIKE WATER RUNNING DOWN HILL; THEY WILL INVARIALBLY BE DISPOSED OF ALONG THE PATH OF LEAST RESISTANCE. FURTHERMORE, ADDITIONAL "SUPERFUND" SITES ARE BEING CREATED DESPITE ALL ATTEMPTS AT PREVENTION SIMPLY DUE TO THE BACKLOG OF UNINSPECTED, SUBSTANDARD FACILITIES. THE REAL IMPACT OF THE LEGISLATION BEFORE THIS COMMITTEE WILL BE TO INSURE THAT THE LAW AND THE REGULATIONS THEMSELVES DO NOT

PROVIDE COVER AND OFFICIAL SANCTION TO PRACTICES THAT ARE CLEARLY IN NEED OF PROPER CONTROLS AND IN TURN WILL CREATE FUTURE "SUPERFUND" SITES THAT THREATEN THE HEALTH AND WELL-BEING OF THIS NATION. THIS, WE BELEIVE SHOULD BE THE PRIMARY OBJECTIVE OF THIS ENDEAVOR. IF UNDERTAKEN, WE BELIEVE THAT IT WILL LEAD TO INCREASED TREATMENT AND PROPER ULTIMATE DISPOSITION OF HAZARDOUS WASTES THAT HERETOFORE HAD MERELY BEEN LAND DISPOSED WITHOUT PRECAUTION.

I APPRECIATE THIS OPPORTUNITY TO APPEAR BEFORE THIS COMMITTEE ON BEHALF OF THE HAZARDOUS WASTE TREATMENT COUNCIL. WE WILL BE SUBMITTING TO THE COMMITTEE OUR VIEWS ON SEVERAL OTHER IMPORTANT PROVISIONS IN THE NEAR FUTURE, AND LOOK FORWARD TO WORKING WITH YOU, MR. CHAIRMAN, AND THE MEMBERS OF THE COMMITTEE DURING YOUR CONSIDERATION OF S.757.

Appendix I

I. Waste Reduction

Waste reduction includes activities such as source separation, process modification, end-product substitution and recycling:

(a) Source separation prevents the contamination of large volumes of nonhazardous waste by removal of hazardous constituents to form a concentrated hazardous waste. For example, metal finishing rinse water is rendered nonhazardous by separation of toxic metals. The water then can be disposed of through municipal sewer systems.

(b) Process modifications are, in general, made on a continuous basis in existing plants to increase production efficiencies and to make product improvements. These modifications can also be used to reduce the volume or alter the toxicity of the wastes generated. Process modifications have proven successful in reducing the volume of hazardous wastes in the chlor-alkali, vinyl chloride and metal finishing industries.

(c) End-product substitution is the third form of hazardous waste reduction and involves the replacement of a product, the manufacture of which generates large amounts of hazardous waste, for a new product which would eliminate or reduce the generation of hazardous wastes, such as occurred with asbestos and PCB's.

(d) Recycling and recovery of materials from hazardous waste streams constitutes the fourth broad class of waste reduction techniques. After process modification, source separation and end-product substitution, recycling is the preferred approach. It minimizes environmental risk, reduces management costs, and can even produce revenue. But in spite of its desirability it is the most difficult technology to practice. This is because it requires mixing and matching the waste disposal market and the market for raw materials.

II. Hazard Reduction Technologies

The second major category of land disposal alternatives consists of technologies to reduce the hazard of a waste. These are frequently referred to as detoxification technologies, that is, the conversion of a hazardous waste to a nonhazardous waste through thermal, biological or chemical techniques.

(a) Thermal treatment. The primary means of thermal treatment is high-temperature incineration, which is specifically designed to achieve high levels of destruction and removal efficiency through a combination of high temperatures, retention time and proper mixing of hazardous waste. Another method of thermal treatment currently in use is wet oxidation. This process is roughly equivalent to incineration except that it occurs in a liquid rather than an air medium, and relies on lower temperatures in a pressurized reactor vessel. Currently the process is commercially applicable to aqueous organic waste streams which are too dilute for incineration, yet too toxic for biological treatment.

(b) Biological treatments use naturally occurring organisms to degrade or remove hazardous constituents, including activated sludge, trickling filters, anaerobic digestion, and composting. Several of these techniques have been in use for many years as a means of treating municipal and industrial wastes and are now undergoing enhanced application in selected hazardous waste systems.

(c) Chemical treatment may take on a wide variety of applications. One of the most common forms of chemical treatment involves the neutralization of waste mixtures of which the primary hazard is due to the high acidity or alkalinity of the wastes. In addition, many specialized forms of chemical treatment have been developed, one of the best known being the chemical dechlorination process, which strips chlorine atoms from PCB-type chemicals, forming a salt and an inert sludge.

(d) Chemical stabilization represents the fourth general class of treatment technologies which reduce or eliminate the hazard posed by a given waste. This process involves the reaction of a variety of chemical additives with waste materials to form a chemically and structurally stable product such that the hazardous waste is essentially unleachable. At present, these stabilization processes are largely limited to persistent, inorganic wastes such as heavy metals.

EMERGING WASTE AND HAZARD REDUCTION TECHNOLOGIES

In addition to the established methods for hazardous waste treatment and volume reduction, there are several other methods and technologies that are presently in the developmental and demonstration phase, and frequently are specialized to address highly toxic and persistent waste streams. These include:

- * ion exchange, extraction and electrolysis to recover and reduce the volume of inorganic wastes, and adsorption technology to remove pesticide and other organic wastes from a mixed waste stream;

- * in the area of thermal treatment, molten salt, plasma arc radiation, and super critical water all represent innovative approaches to high temperature destruction in their respective media;

- * regarding biological and chemical treatment and stabilization, significant research is presently being conducted to develop specific microbial strains that are capable of degrading multiple compounds and pesticides. Several other chemical treatment methods are also under development, as are additional chemical stabilization techniques for inorganic and, particularly, organic wastes.

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Statement of A. Blakeman Early
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before the

Subcommitte on Environmental Pollution
Senate Committee on Environment and Public Works

June 8, 1983

Mr. Chairman, and Members of the Subcommittee, my name is Blakeman Early. I am a Washington Representative of the Sierra Club. It is a great pleasure to have the opportunity to testify todayon the subject of land disposal as the Subcomittee considers amendments to the Resource Conservation and Recovery Act.

The Subcomittee is reviewing this legislation at a pivotal time. After many years of struggle, the Environmental Protection Agency has completed the bulk of its regulations governing land disposal. From our point of view these regulations are a classic example of too little too late. As the Subcommittee Members probably know all too well these regulations were supposed to have been promulgated in April, 1978. Here we are five years later , and the final regulations have been in effect only five months. Moreover, in our view, the requirements fall far short of those necessary to provide assurances that serious public health threats will not be posed by land disposal in the future. We are disappointed that these regulations were not made considerably more stringent not only to provide greater assurances that future land disposal of hazardous wastes will be safer that past practices, but to provide a strong incentive to generators to seek alternatives to land disposal.\1

Land Disposal - A Hazardous Option

The fact of the matter is that land disposal in many cases will not contain wastes for a period longer than the period they remain hazardous. The technology for building the ultimate bath tub to contain many of our wastes simply has not been developed. Even EPA admits this as the case. Thus, in its reproposal of the technical standards for permitting land disposal facilities EPA stated, "Unfortunately, at the present time, it is not technologically and institutionally possible to contain wastes and constituents forever or for the long time periods that may be necessary to allow adequate degradation to be achieved. Consequently, the regulation of hazardous waste land disposal must proceed from the assumption that migration of hazardous wastes and their constituents and by-products from a land disposal facility will inevitably occur."\2

Problems plague even landfills considered to be among the most advanced facilities ever constructed. A study of four landfills in New Jersey constructed in the last seven years. Three of these landfills are double-lined with synthetic liners, and the fourth is lined with 30 inches of clay. The authors concluded that two of the sites had developed serious leaks in the liners, and the other two may be leaking , based on a statistical analysis of the data.\3 In Wilsonville, Illinois, a secure landfill permitted in 1976 and declared by the EPA to be one of the most secure in the nation was found to be leaking severely. The site was closed by court order in 1981. A 1980 study of secure landfills in New York concluded that the they could not achieve long-term isolation of toxic waste without expensive remedial work and perpetual care. These findings were based upon documented occurrences of cap deterioration, high leachate levels, and the need for premature remedial work at three sites.\4

A number of studies have recognized this problem and made proposals to respond to it. All the proposals place major importance upon minimizing the amount of hazardous waste that ultimately must be disposed of in or on the land. We see little indication that EPA will be launching a new regulatory initiative to achieve such a goal. Therefore, this Subcommittee is in the perfect position to provide the initiative for the EPA.

Let me briefly review for you some of the studies and actions taken by various governments in recognition of the relative undesirability of land disposal. In 1982, the State of California promulgated regulations curtailing the disposal of liquid hazardous wastes in land disposal facilities and prohibiting the disposal of hazardous wastes containing certain toxic constituents at all land disposal facilities. It did so in recognition that land disposal facilities could not guarantee that wastes could be contained until such wastes had degraded and become harmless.\5

In 1980, the State of Minnesota passed the Waste Management Act, the goals of which are:

1) Reduction in waste generated;

2) Separation and recovery of material and energy from waste;

3) Reduction in indiscriminate dependence on disposal of waste;

4) Orderly and deliberate development and financial security of waste facilities including disposal facilities

A recent report issued by the National Research Council found, "Landfill must be considered as the last alternative after all waste treatment technologies, including detoxification, volume reduction, and resource recovery, have been explored."/6

The reduction of wastes destined for land disposal has been persued for years in Europe. Both West Germany and Denmark prohibit the land disposal of organic hazardous waste. Almost 85 percent of all waste generated in West Germany are sent to one of the fifteen large integrated treatment faciliites for destruction or detoxification./7 By contrast, EPA estimates that as much as 80 percent by volume of the waste generated in the U.S. is land disposed without treatment.\8

Availability of Alternatives

Of course, restricting the land disposal of wastes would make little sense if alternative courses of action were not available. However, the studies that have been done provide overwhelming evidence that alternative means of dealing with many hazardous wastes are technically available and at an affordable cost.

A study done by the California Office of Appropriate Technology found that it was technically feasible to recycle, treat, or destroy approximately 75 percent of all the hazardous wastes which were currently disposed of at off-site land disposal facilities.\9 The study found that while the cost increases for alternative technologies could nearly double current cost of land disposal, such costs were less than 1 percent of total business costs. Also, the cost of cleaning up additional leaking land disposal facilities would be much higher than this increase.\10

A recently published study by the Office of Technology Assessment concurs in the concusions of the above study. The study found that there is considerable evidence based on practical experience that several technological approaches are technically feasible to reduce the amount of waste requiring treatment or disposal.\11 The study also found that a number of current regulatory policies and practices may act as disincentives for waste reduction and treatment activities. Most of these concern the leniency of federal regulation of landfills which operates to keep landfill costs low.\12

A draft report prepared for the Minnesota Waste Management Board identified 31 treatment and destruction technologies that are feasible and appropriate for use in the development of plans for reducing dependence on land disposal.\13 Under a "high waste reduction" alternative examined, the amount of waste destined for land disposal would actually decline by 12 percent by the year 2000.\14

The NRC study referred to above found that a large number of chemical and physical treatment techniques are available and being used widely in dealing with hazardous industrial wastes.\15

Prohibition of Land Disposal

We believe that the above data provide a strong basis for concluding that land disposal of hazardous wastes, particularly highly toxic and persistent wastes, should be the management option of last resort. Alternatives to land disposal of many wastes are available. And the current federal regulatory scheme encourages, rather than discourages the land disposal of hazardous wastes. The time is ripe for this Subcommittee to set the EPA on a new course that will actively discourage the land disposal of wastes that are inappropriate for such disposal.

Quite frankly, the approach taken by the State of California appears to provide the best pattern for the new federal regulatory policy. We would recommend the Subcommittee adopt amendments to RCRA that would :

1) Require EPA to promulgate regulations to minimize the landfill disposal of all liquid wastes and permanently ban the landfill disposal of free liquid and bulk liquid hazardous wastes.

2) Require EPA to promulgate regulations prohibiting one or more methods of land disposal of specified hazardous wastes unless it determines the prohibition is not required. The specified wastes would be those already prohibited by the State of California.

3) Require EPA to review, on a tight deadline, all wastes identified or listed under Section 3001 to determine if any of these wastes should be prohibited from being disposed of by certain methods of land disposal.

4) Require EPA to make the above prohibitions whenever it determines that a method of land disposal may not be protective of human health and the environment for as long as the waste remains hazardous, taking into account the long-term uncertainties associated with land disposal and the characteristics of the waste.

5) Legislatively mandate "back-up" prohibitions of the land disposal of liquid wastes in landfills, and specified wastes should the EPA fail to meet the mandate schedule.

Obviously, these five elements essentially describe Section 5 of H.R. 2867, as reported by the House Energy and Commerce Committee. We feel that this provision has a great deal of merit. It provides a major push in federal policy toward the elimination of liquid wastes from landfilling in particular and land disposal in general, particularly for certain known highly toxic wastes. It requires EPA to comprehensively look further for wastes that are inappropriate for land disposal. Finally, it ensures that in circumstances where EPA fails to act, progress is made toward the goal of reducing the use of land disposal for these problem wastes.

I do not think I need to review the necessity for this "back-up" prohibition, in view of EPA's dismal record in meeting the many deadlines this Subcommittee has given it in numerous regulatory statutes. All too often EPA has appeared to be paralyzed by indecision with regard to which way to implement a legislative mandate. This "back-up" prohibition ensures that the public will not suffer as a result of EPA indecision.

Mr. Chairman, and Members of the Subcommittee, the direction for a new initiative in federal regulatory policy to protect the American people from the threat of hazardous waste is clear. We urge you to set EPA to the task as quickly as possible. In our view, a great deal of revision in the current federal regulatory scheme, as well as in enforcement, is needed before the public will have confidence that the hazardous wastes generated today will not come back to haunt us in the future.

Thank you for providing me the opportunity to testify today.

NOTES

1) The Environmental Defense Fund has challenged these regulations on fourteen separate bases seen as being inadequate . In The Land Disposal Litigation, U.S. Court of Appeals D.C. Cir., Docket No. 82-2205.

2) Fed. Reg., Vol. 46,No. 24, Feb. 5, 1981.

3) Montague, 1981.

4) Skinner, 1980.

5) Department of Health Services, Health and Welfare Agency, State of California., Changes in Regulations of the Department of Health Services Regarding Hazardous Waste Land Disposal Restrictions. (R-32-82) Statement of Reasons, p.8.

6) Management of Hazardous Industrial Waste - Research and Development Needs, National Materials Advisory Board, National Research Council, Publication NMAB-398, 1983, p. 62.

7) Alternatives to the Land Disposal of Hazardous Wastes, An Assessment for California, Office of Appropriate Technology, State of California, 1981 p. 155.

8) Technologies and Management Strategies for Hazardous Waste Control, Congress of the United States, Office of Technology Assessment March 1983, p.8

9) Alternatives, Op. Cit., p.183.

10) Id, p.184.

11) Technologies ,Op. Cit., p.10.

12) Id., p.12.

13) Draft Hazardous Waste Management Report, Minnesota Waste Management Board, April 28, 1983, p. VI-20.

14) Id, p.I-8.

15) Management, Op. Cit., p.16.

II

98TH CONGRESS
1ST SESSION

S. 757

To amend the Solid Waste Disposal Act to authorize funds for fiscal years 1983, 1984, 1985, 1986, and 1987, and for other purposes.

IN THE SENATE OF THE UNITED STATES

MARCH 10 (legislative day, MARCH 7), 1983

Mr. CHAFEE (for himself and Mr. RANDOLPH) introduced the following bill; which was read twice and referred to the Committee on Environment and Public Works

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A BILL

To amend the Solid Waste Disposal Act to authorize funds for fiscal years 1983, 1984, 1985, 1986, and 1987, and for other purposes.

Be it enacted by the Senate and House of Representatives of the United States of America in Congress assembled,

SHORT TITLE

SECTION 1. This Act may be cited as the "Solid Waste Disposal Act Amendments of 1983".

AUTHORIZATION

SEC. 2. Section 2007(a) of the Solid Waste Disposal Act is amended by striking "and" immediately following "1981," and by inserting immediately before the period at the end thereof ", $43,628,000 for the fiscal year ending September 30, 1983, $45,000,000 for the fiscal year ending September 30, 1984, $47,000,000 per fiscal year for the fiscal years ending September 30, 1985, September 30, 1986, and September 30, 1987".

SEC. 3. Section 3011(a) of the Solid Waste Disposal Act is amended by striking "and" immediately following "1981" and by inserting immediately following "1982" the following: "$45,000,000 for the fiscal year 1983, $47,000,000 for the fiscal year 1984, $50,000,000 for fiscal year 1985, and $52,500,000 per fiscal year for fiscal years 1986 and 1987".

SMALL QUANTITY GENERATOR REGULATION AND STUDY

SEC. 4. Section 3002 of the Solid Waste Disposal Act is amended by inserting "(a) STANDARDS.—" after "SEC. 3002." and by adding the following new subsection:

"(b) HAZARDOUS WASTE FROM SMALL QUANTITY GENERATORS.—(1) Each generator of a hazardous waste identified in accordance with section 3001 on the basis of the characteristic of ignitability, reactivity, or corrosivity or listed under section 3001, which generates such wastes during any calendar month in a total quantity less than one thousand kilograms, when such waste is transported off the premises on which such waste is generated, shall comply with applicable rules promulgated by the Secretary of Transportation under the Hazardous Materials Transportation Act or, if such rules are not applicable with the following requirements:

"(A) The generator shall notify the transporter of shipments of hazardous waste from such generator of the following information, at a minimum: (i) the name of the generator of such waste, (ii) the quantity of waste being transported, and (iii) the identity of such waste expressed by the Environmental Protection Agency hazardous waste identification number or the hazardous characteristic or a generic description of the waste, and an indication that the shipment is a hazardous waste.

"(B) Such wastes shall be placed in suitable, sound, nonleaking containers as follows:

"(i) off-specification materials, residual materials, and materials from spill cleanup may be placed in the original containers of such materials, or in equivalent containers labeled with the same information as the original containers and suitably constructed to contain such materials;

"(ii) a waste may be placed in a Department of Transportation specification hazardous material container with prescribed labeling;

"(iii) other wastes may be placed in a container or otherwise handled by a method (including a method of identification or labeling consistent with subparagraph (A)) mutually agreed by the generator and the transporter of such wastes. Wastes that are not incompatible may be aggregated in such suitable containers. For the purpose of this subparagraph, aggregation means the mixing of two or more types of wastes within the innermost container.

"(C) Empty containers of less than one barrel in volume shall not be deemed waste subject to the requirements of this paragraph. For the purpose of this subparagraph, "barrel" means forty-two United States gallons, at sixty-two degrees Fahrenheit. For the purposes of this subparagraph, an empty container is one from which the contents have been removed by normal use and removal practices and does not require a cleaning process such as triple rinsing.

"(D) A hazardous waste otherwise subject to this paragraph which is transported off the premises on which such waste is generated for actual reuse, refining or materials recovery shall be deemed to meet the requirements of this paragraph.

"(E) Except as provided in paragraph (7), a generator subject to this paragraph shall not be subject to additional requirements for manifesting, recordkeeping, or reporting beyond those in regulations promulgated prior to January 1, 1983.

"(2) Each transporter of any hazardous waste subject to paragraph (1) which is a part of a total quantity generated by a generator during any calendar month which is less than one thousand kilograms (including any generator transporting such waste) shall provide to the operator of any treatment, storage, or disposal facility to which such is delivered, a notice containing the information required by paragraph (1)(A). Except as provided in paragraph (7) or State or local law, a transporter subject to this paragraph shall not be required to notify governmental authorities as transporters of hazardous waste beyond requirements in regulations promulgated prior to January 1, 1983.

"(3)(A) Until the effective date of regulations promulgated under paragraph (7), any hazardous waste identified or listed under section 3001 generated by any generator during any calendar month in a total quantity less than one thousand kilograms, which is not delivered to a hazardous waste treatment, storage, or disposal facility with a permit under section 3005, shall be disposed of only in a facility which meets the requirements of the criteria promulgated under sections 4004(a) and 1008(a)(3).

"(B) Not later than thirty months after the enactment of the Solid Waste Disposal Act Amendments of 1983, the Administrator shall promulgate revisions of such criteria under sections 4004(a) and 1008(a)(3) to take into account the potential receipt of such facilities of hazardous waste in household waste and from small quantity generators under this subsection as may be necessary to protect human health and the environment.

"(4) The provisions of paragraphs (1), (2), and (3)(A) shall take effect on the date one hundred and eighty days after the enactment of the Solid Waste Disposal Act Amendments of 1983.

"(5) Requirements under section 3004 for storage of hazardous waste identified or listed under section 3001 which is generated by any generator during any calendar month in a total quantity less than one thousand kilograms shall provide for onsite storage of such hazardous waste for up to one hundred and eighty days without the requirement of a permit.

"(6) Nothing in this subsection shall be construed to affect, modify, or render invalid any requirements applicable to any hazardous waste identified or listed under section 3001 which is generated by any generator during any calendar month in a total quantity less than one thousand kilograms, in regulations promulgated prior to January 1, 1983. Any additional acute hazardous waste listed under section 3001 after January 1, 1983, shall be subject to all regulations applicable to acutely hazardous wastes.

"(7)(A) The Administrator in cooperation with the States shall conduct a study of hazardous waste identified or listed under section 3001 of this Act which is generated by individual generators in total quantities for each generator during any calendar month of less than one thousand kilograms. The Administrator may require from such generators information as may be necessary to conduct the study. Such study shall include a characterization of the number and type of such generators, the quantity and characteristics of hazardous waste generated by such generators, State requirements applicable to such generators, the individual and industry waste management practices of such generators, the potential costs of modifying those practices and the impact of such modifications on national treatment and disposal facility capacity, and the threat to the protection of public health and the environment and the employees of transporters or others involved in solid waste management posed by such hazardous wastes or such management practices. Such study shall specifically address whether, (i) the requirements of paragraphs (1), (2), and (3) should apply to hazardous wastes identified on the basis of the characteristic of extraction procedure toxicity or additional characteristics promulgated under section 3001(b)(5), and (ii) all hazardous wastes subject to this subsection which are transported off the premises on which such wastes are generated should be required to be delivered to a treatment, storage, or disposal facility with a permit under section 3005. Such study shall be submitted to the Congress not later than two years after the enactment of the Solid Waste Disposal Act Amendments of 1983.

"(B) Based upon the study required by subparagraph (A) and other information available to the Administrator and after consultation with the States, the Administrator shall promulgate within three years after enactment of the Solid Waste Disposal Act Amendments of 1983 additional regulations establishing such requirements under this section and sections 3003, 3004, and 3005 of this Act for hazardous waste identified or listed under section 3001 which is generated by a generator during any calendar month in a total quantity less than one thousand kilograms, as may be necessary to protect human health and the environment. Such requirements may supplement the requirements of paragraphs (1) through (5) of this subsection and may distinguish among classes and categories of generators or waste, and may vary from the requirements applicable to hazardous waste generated in quantities greater than one thousand kilograms during any calendar month, to the extent the Administrator determines such variation is necessary by reason of the smaller amount of waste generated, the smaller size and the technical and managerial capability of such generators, and is adequate to protect human health and the environment. The Administrator shall consider State requirements applicable to generators of hazardous wastes which generate such wastes in a total quantity less than one thousand kilograms per month in promulgating such regulations and shall address differences between State requirements and regulations promulgated under this subparagraph. Regulations promulgated under this paragraph may provide that a hazardous waste identified or listed under section 3001 generated by a generator during any calendar month in a total quantity less than one thousand kilograms, which is transported off the premises on which generated, be delivered to a treatment, storage, or disposal facility which meets the requirements of paragraph (3) rather than to a facility with a permit under section 3005, if protection of human health and the environment can be assured.".

LAND DISPOSAL LIMITATIONS

SEC. 5. (a) Section 3004 of the Solid Waste Disposal Act is amended by inserting "(a) STANDARDS.—" after "SEC. 3004." and by adding the following new subsections:

"(b) LAND DISPOSAL LIMITATIONS.—Not later than twelve months after the enactment of the Solid Waste Disposal Act Amendments of 1983, the Administrator shall promulgate, and from time to time thereafter revise to add additional wastes, regulations prohibiting the disposal on or into land of specified hazardous wastes identified or listed under section 3001 through one or more methods of land disposal. The Administrator shall specify each hazardous waste for which it may reasonably be anticipated that one or more methods of land disposal will not be protective of human health and the environment, taking into account the persistence, toxicity, mobility, and propensity to bioaccumulate of such hazardous waste. In promulgating such regulations, the Administrator shall consider each hazardous waste which is prohibited from land disposal by any State, which contains significant concentrations of halogenated organic compounds, or on which any State or interested persons petitions the Administrator for a prohibition under this subsection. A prohibition in regulations under this subsection shall be effective immediately upon promulgation, unless the Administrator establishes another effective date with respect to a specific hazardous waste on the basis of the earliest date on which an alternative treatment, recovery, or disposal method which protects human health and the environment will be technologically feasible, which shall in no event be later than two years after the date of promulgation.

"(c) Liquids in Landfills.—Not later than one year after the enactment of the Solid Waste Disposal Act Amendments of 1983, the Administrator shall promulgate final regulations which minimize the disposal of liquid hazardous waste in landfills. Prior to the promulgation of such final regulations, the requirements in regulations under this section respecting the disposal of landfills of liquid hazardous waste and free liquids contained in hazardous waste in effect as of October 1, 1982, shall remain in effect.".

(b) Section 3005(e) of the Solid Waste Disposal Act is amended by adding the following: "The owner or operator of a landfill or surface impoundment qualifying for the authorization to operate under this subsection shall be subject to the same requirements for liners and leachate collection systems or equivalent protection provided in regulations promulgated by the Administrator under section 3004 before October 1, 1982, for new facilities receiving individual permits under subsection (c) of this section. Such requirements shall apply to each new unit, replacement of an existing unit or lateral expansion of an existing unit that is within the waste management area identified in the permit application submitted under this section and that receives waste six months after the date of enactment of the Solid Waste Disposal Act Amendments of 1983. The Administrator may, under section 3004, amend the requirements for liners and leachate collection systems required under this subsection as may be necessary to protect human health and the environment.".

LISTING/DELISTING MODIFICATIONS

SEC. 6. Section 3001(b) of the Solid Waste Disposal Act is amended by adding at the end thereof the following new paragraphs:

"(4)(A) The regulations promulgated under paragraph (1) shall provide that, when evaluating a petition to exclude a waste generated at a particular facility from being regulated as a hazardous waste, the Administrator shall consider criteria, constituents or other related factors, other than those for which the waste was listed, if the Administrator has a reasonable basis to believe that such additional criteria, constituents, or other related factors could cause such waste to be listed as a hazardous waste. The Administrator shall grant or deny such petitions only after notice and opportunity for public hearing.

"(B) The temporary granting of such a petition prior to the enactment of the Solid Waste Disposal Act Amendments of 1983 without the opportunity for public comment and the full consideration of such comment shall not continue for more than twelve months after the date such petition is granted or six months after the date of enactment of the Solid Waste Disposal Act Amendments of 1983, whichever is later. If a final decision to grant or deny such a petition has not been promulgated after notice and opportunity for public comment within the time limit prescribed by the preceding sentence, any such temporary granting of such petition shall cease to be in effect.

"(C) Any petition to exclude from regulation a waste generated at a particular facility shall be accompanied by adequate information to evaluate such petition, including information on samples of such waste determined to be representative on the basis of guidelines for the development and submission of such information published by the Administrator. Such information shall be certified by a responsible corporate official of such facility to be accurate, complete, and representative, within the knowledge of employees or contractors of such facility.

"(5) For the purpose of assuring the timely completion of regulations identifying the characteristics of hazardous waste and the listing of additional particular hazardous wastes, as required by paragraph (1) of this subsection, the Administrator shall—

"(A) not later than six months after the date of enactment of the Solid Waste Disposal Act Amendments of 1983, submit to the Congress a workplan (i) for developing regulations identifying additional characteristics of hazardous waste, including measures or indicators for toxicity; (ii) identifying those particular wastes on which the Agency intends to decide whether to list as hazardous waste within two years after such date of enactment, and those particular wastes on which the Agency intends to decide within five years after such date of enactment; and (iii) developed by the National Toxicology Program in cooperation with the Administrator, evaluating the feasibility of whether the presence of certain constituents (such as known carcinogens, mutagens, or teratogens) at levels substantially in excess of levels commonly agreed to affect health may cause wastes to be hazardous per se;

"(B) not later than six months after the date of enactment of the Solid Waste Disposal Act Amendments of 1983, promulgate regulations listing dioxin- and dibenzofuran-containing wastes as hazardous wastes in accordance with paragraph (1) of this subsection; and

"(C) not later than two years after the date of enactment of the Solid Waste Disposal Act Amendments of 1983, (i) promulgate regulations identifying additional characteristics of hazardous waste; (ii) reach decisions on all wastes identified in accordance with subparagraph (A)(ii) for decision within two years and for each such waste either promulgate regulations listing such particular hazardous waste or publish a statement as to why such waste should not be listed as hazardous waste; and (iii) report to the Congress on progress on subparagraph (A)(iii); and

"(D) not later than six months after the date of enactment of the Solid Waste Disposal Act Amendments of 1983, determine the appropriateness of using the extraction procedure toxicity characteristic for evaluating petitions to exclude a waste generated at a particular facility from being regulated as a hazardous waste, and, not later than two years after such date of enactment, make such improvements as are necessary in the procedure to predict more accurately the leaching potential of wastes.".

BURNING AND BLENDING OF HAZARDOUS WASTES

SEC. 7. (a) NOTICE.—(1) Section 3010 of the Solid Waste Disposal Act is amended by inserting the following after the first sentence thereof: "Not later than twelve months after the date of the enactment of the Solid Waste Disposal Act Amendments of 1983—

"(1) the owner or operator of any facility which produces a fuel (A) from any hazardous waste identified or listed under section 3001, (B) from such hazardous waste identified or listed under section 3001 and any other material, (C) from used oil, or (D) from used oil and any other material;

"(2) the owner or operator of any facility (other than a single- or two-family residence) which burns for purposes of energy recovery any fuel produced as provided in paragraph (1) or any fuel which otherwise contains used oil or any hazardous waste identified or listed under section 3001; and

"(3) any person who distributes or markets any fuel which is produced as provided in paragraph (1) or any fuel which otherwise contains used oil or any hazardous waste identified or listed under section 3001 shall file with the Administrator a notification stating the location and general description of the facility, together with a description of the identified or listed hazardous waste involved and, in the case of a facility referred to in paragraph (1) or (2), a description of the production or energy recovery activity carried out at the facility and such other information as the Administrator deems necessary. For purposes of the preceding sentence, the term 'hazardous waste listed under section 3001' also includes any commercial chemical product which is listed under section 3001 and which, in lieu of its original intended use, is (i) produced for use as (or as a component of) a fuel, (ii) distributed for use as a fuel, or (iii) burned as a fuel. Notification shall not be required under the second sentence of this subsection in the case of facilities (such as residential boilers) where the Administrator determines that such notification is not necessary in order for the Administrator to obtain sufficient information respecting current practices of facilities using hazardous waste for energy recovery. Nothing in this subsection shall be construed to affect or impair the provisions of section 3001(b)(3). Nothing in this subsection shall affect regulatory determinations under section 3014 (as amended by the Used Oil Recycling Act of 1980).".

(2) Section 3010 of such Act is amended by striking out "the preceding sentence" each place it occurs and substituting "the preceding provisions".

(b) STANDARDS.—Section 3004 of such Act is amended by adding the following at the end thereof:

"(d) HAZARDOUS WASTE USED AS FUEL.—Not later than two years after the date of the enactment of the Solid Waste Disposal Act Amendments of 1983, and after notice and opportunity for public hearing, the Administrator shall promulgate regulations establishing such—

"(1) standards applicable to the owners and operators of facilities which produce a fuel, (A) from any hazardous waste identified or listed under section

3001, or (B) from any hazardous waste identified or listed under section 3001 and any other material;

"(2) standards applicable to the owners and operators of facilities which burn for purposes of energy recovery any fuel produced as provided in paragraph (1) or any fuel which otherwise contains any hazardous waste identified or listed under section 3001; and

"(3) standards applicable to any person who distributes or markets any fuel which is produced as provided in paragraph (1) or any fuel which otherwise contains any hazardous waste identified or listed under section 3001.

as may be necessary to protect human health and the environment. Such standards may include any of the requirements set forth in paragraphs (1) through (7) of subsection (a) as may be appropriated. Nothing in this subsection shall be construed to affect or impair the provisions of section 3001(b)(3). For purposes of this subsection, the term 'hazardous waste listed under section 3001' includes any commercial chemical product which is listed under section 3001 and which, in lieu of its original intended use, is (A) produced for use as (or as a component of) a fuel, (B) distributed for use as a fuel, or (C) burned as a fuel. This subsection, subsection (e) and the second sentence of section 3010 shall not apply to petroleum refinery wastes containing oil which are converted into petroleum coke at the same facility at which such wastes were generated, unless the resulting coke product would exceed one or more characteristic by which a substance would be identified as a hazardous waste under section 3001.

"(e) LABELING.—Notwithstanding any other provision of law, it shall be unlawful for any person who is required to file a notification in accordance with paragraph (1) or (3) of section 3010 to distribute or market any fuel which is produced from any hazardous waste identified or listed under section 3001, or any fuel which otherwise contains any hazardous waste identified or listed under section 3001 if the invoice or the bill of sale fails—

"(1) to bear the following statement: 'WARNING: THIS FUEL CONTAINS HAZARDOUS WASTES', and

"(2) to list the hazardous wastes contained therein.

Such statement shall be located in a conspicuous place on every such invoice or bill of sale and shall appear in conspicuous and legible type in contrast by typography, layouts, or color with other printed matter on the invoice or bill of sale.

"(f) RECORDKEEPING.—Not later than twelve months after the enactment of the Solid Waste Disposal Act Amendments of 1983, the Administrator shall promulgate regulations requiring that any person who is required to file a notification in accordance with subparagraph (1), (2), or (3), of paragraph 3010(a) must maintain such records regarding fuel blending, distribution, or use as may be necessary to protect human health and the environment."

MANDATORY INSPECTIONS

SEC. 8. Section 3007 of the Solid Waste Disposal Act is amended by inserting the following new subsection after subsection (a) and by redesignating succeeding subsections accordingly:

"(b) MANDATORY INSPECTIONS.—(1) Beginning twelve months after the enactment of the Solid Waste Disposal Act Amendments of 1983, every facility for the treatment, storage, or disposal of hazardous waste for which a permit is required under section 3005 of this title shall be thoroughly and regularly inspected no less often than every two years as to its compliance with this subtitle and the regulations promulgated thereunder. The Administrator shall, after notice and opportunity for public comment, promulgate regulations governing the minimum frequency and manner of such inspections, including the manner in which records of such inspections shall be maintained. The Administrator may distinguish between classes and categories of facilities commensurate with the risks posed by each class or category.

"(2) Not later than six months after the enactment of the Solid Waste Disposal Act Amendments of 1983, the Administrator shall submit to the Congress a report on the potential for inspections of hazardous waste treatment, storage, or disposal facilities by nongovernmental inspectors as a supplement to inspections conducted by officers, employees, or representatives of the Environmental Protection Agency or States having authorized hazardous waste programs or operating under a cooperative agreement with the Administrator. Such report shall be prepared in cooperation with the States, insurance companies offering environmental impairment insurance, and independent companies providing inspection services, and other such groups as appropriate. Such report shall contain recommendations on provisions and requirements for a program of private inspections to supplement governmental inspections.".

BIENNIAL REPORT

SEC. 9. Section 2006 of the Solid Waste Disposal Act is amended by inserting "(a) ACTIVITIES OF THE OFFICE.—" after "SEC. 2006." and by inserting at the end thereof the following new subsection:

"(b) HAZARDOUS WASTE.—(1) The Administrator shall transmit to the Congress and the President, periodically but no less often than every two years a report describing quantities and types of hazardous waste generated, stored, treated, and disposed of. The Administrator shall compile and update such information comparable to that required under section 3002(a)(6) and section 3004(a) (1) and (2).

"(2) States with authorized programs under section 3006 shall make available those annual reports they have received to assist the Administrator in preparing such report for Congress. The first such report shall cover calendar year 1983 and shall be transmitted to the Congress no later than September 30, 1984.

"(3) The authority of section 3007 of this Act shall be available in the implementation of this subsection.".

AWARD OF FEES

SEC. 10. Section 7002(e) of the Solid Waste Disposal Act is amended by inserting "prevailing or substantially prevailing" before "party" in the first sentence thereof.

JUDICIAL REVIEW

SEC. 11. Section 7006 of the Solid Waste Disposal Act is amended to read as follows:

"SEC. 7006. (a) REVIEW OF FINAL REGULATIONS AND CERTAIN PETITIONS.—A petition for review of the promulgation of final regulations under this Act and the Administrator's denial of any petition for the promulgation, amendment, or repeal of any regulation under this Act may be filed in the United States Court of Appeals for the District of Columbia or in any United States Court of Appeals for a circuit in which the petitioner resides or transacts business, and such petition shall be filed within one hundred and twenty days from the date of such promulgation or denial, unless such petition is based solely on grounds arising after such one hundred and twentieth day. Any action of the Administrator with respect to which review could have been obtained under this subsection shall not be subject to judicial review in civil or criminal proceedings for enforcement.

"(b) REVIEW OF CERTAIN ACTIONS UNDER SECTIONS 3005 AND 3006.—A petition for review of the Administrator's action (1) in issuing, denying, modifying, or revoking any permit under section 3005, or (2) in granting, denying, or withdrawing authorization or interim authorization under section 3006, may be filed in the United States Court of Appeals for a curcuit in which the petitioner resides or transacts business, and such petition shall be filed within one hundred and twenty days from the date of such issuance, denial, modification, revocation, grant, or withdrawal, or after such date only if such petition is based solely on grounds which arose after such one hundred and twentieth day.

"(c) In any judicial proceeding brought under this section in which review is sought of a determination under this Act required to be made on the record after notice and opportunity for hearing, if a party seeking review under this Act applies to the court for leave to adduce additional evidence, and shows to the satisfaction of the court that the information is material and that there were reasonable grounds for the failure to adduce such evidence in the proceeding before the Administrator, the court may order such additional evidence (and evidence in rebuttal thereof) to be taken before the Administrator, and to be adduced upon the hearing in such manner and upon such terms and conditions as the court may deem proper; the Administrator may modify his findings as to the facts, or make new findings, by reason of the additional evidence so taken, and he shall file with the court such modified or new findings and his recommendation, if any, for the modification or setting aside of his original order, with the return of such additional evidence.

"(d)(1) If petitions for review of the same agency action have been filed in two or more courts of appeals and the Administrator has received written notice of the filing of the first such petition more than thirty days before receiving written notice of the filing of the second petition, then the record shall be filed in that court in which the first petition was filed. If petitions for review of the same agency action have been filed in two or more courts of appeals and the Administrator has received written notice of the filing of one or more petitions within thirty days or less after receiving written notice of the filing of the first petition, then the Administrator shall promptly advise in writing the Administrative Office of the United States Courts that petitions have been filed in two or more courts of appeals, and shall identify each court for which he has written notice that such petitions have been filed within thirty days or less of receiving written notice of the filing of the first such petition. Pursuant to a system of random selection devised for this purpose, the Administrative Office thereupon shall select the court in which the record shall be filed from among those identified by the Administrator. Upon notification of such selection, the Administrator shall promptly file the record in such court. For the purpose of review of agency action which has previously been remanded to the Administrator, the record shall be filed in the court of appeals which remanded such action.

"(2) Where petitions have been filed in two or more courts of appeals with respect to the same agency action and the record has been filed in one of such courts pursuant to paragraph (1), the other courts in which such petitions have been filed shall promptly transfer such petitions to the court of appeals in which the record has been filed. Pending selection of a court pursuant to subsection (1), any court in which a petition has been filed may postpone the effective date of the agency action until fifteen days after the Administrative Office has selected the court in which the record shall be filed.

"(3) Any court in which a petition with respect to any agency action has been filed, including any court selected pursuant to subsection (d)(1), may transfer such petition to any other court of appeals for the convenience of the parties or otherwise in the interest of justice."

COMPATIBILITY OF RECYCLING AND ENERGY RECOVERY

SEC. 12. (a) Section 4001 of the Solid Waste Disposal Act is amended by adding the following at the end thereof: "In developing such comprehensive plans, it is the intention of this Act that in determining the size of the waste-to-energy facility, adequate provision shall be given to the present and reasonably anticipated future needs of the recycling and resource recovery interest within the area encompassed by the planning process.".

(b) Section 4003 of such Act is amended by adding the following new subsection at the end thereof:

"(c) SIZE OF WASTE-TO-ENERGY FACILITIES.—Notwithstanding any of the above requirements, it is the intention of this Act and the planning process developed pursuant to this Act that in determining the size of the waste-to-energy facility, adequate provision shall be given to the present and reasonably anticipated future needs of the recycling and resource recovery interest within the area encompassed by the planning process.".

CLARIFICATION OF HOUSEHOLD WASTE EXCLUSION

SEC. 13. (a) Section 3001 of the Solid Waste Disposal Act is amended by adding the following new subsection:

"(d) CLARIFICATION OF HOUSEHOLD WASTE EXCLUSION.—A resource recovery facility recovering energy from the mass burning of municipal solid waste shall not be deemed to be treating, storing, or disposing of hazardous wastes for the purposes of section 3004 or 3005 of this Act, if such facility—

"(1) receives and burns only (A) household waste (from single and multiple dwellings, hotels, motels, and other residential sources) and (B) solid waste from commercial or industrial sources that does not contain hazardous waste identified or listed under this section, and

"(2) such facility does not accept hazardous wastes identified or listed under this section and the owner or operator of such facility has established contractual requirements or other appropriate notification or inspection procedures to assure that hazardous wastes are not received at or burned in such facility.".

TECHNICAL CORRECTIONS

SEC. 14. (a) Section 3012 of the Solid Waste Disposal Act, entitled "Restrictions on Recycled Oil," shall be redesignated as section 3014 of such Act, together with all references thereto.

(b) Subsection (b) of section 4003 of the Solid Waste Disposal Act, entitled "Discretionary Plan Provisions Relating to Recycled Oil," shall be redesignated as subsection (c) of such section, together with all references thereto.

(c) Section 303 of Public Law 96–510, 94 Stat. 2808, is amended by inserting after "conferred by this Act" the phrase "(other than under section 4681 of the Internal Revenue Code"). Section 232(c) of such public law is amended by inserting after "223" the phrase "(other than section 223(c)(2)(D))".

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SOLID WASTE DISPOSAL ACT AMENDMENTS OF 1983

THURSDAY, JUNE 9, 1983

U.S. Senate,
Committee on Environment and Public Works,
Subcommittee on Environmental Pollution,
Washington, D.C.

The subcommittee met, at 10 a.m., in room SD-406, Dirksen Senate Office Building, Hon. John H. Chafee (chairman of the subcommittee) presiding.

Present: Senators Stafford, Chafee, and Mitchell.

Senator Chafee. We welcome everyone here this morning.

Senator Dodd is going to come in a few minutes, as I understand it, and we will interrupt the panel for his statement. In the meanwhile, if the panel would come forward, Mr. Lennett, Mr. Gerard, Mr. Mullen, Mr. Spivack, and Mr. Contney. If you would come up in that order. On the left, Mr. Lennett, Mr. Gerard, Mr. Mullen, Mr. Spivack and Mr. Contney on the right as you face the platform.

I will note to everybody gathered here today, we have got a couple of small problems. One is that when Senator Dodd comes, we will interrupt the panel to hear his statement, second, at about 10:25, we will have to have a brief recess while I step next door into the Hart Building for a press conference on a matter that I am involved with, but that will not take long at all.

So why don't we proceed with Mr. Lennett from the EDF.

Gentlemen, and future witnesses, all of you have statements. All of the statements will be included in the record. We would like you to limit your testimony to 5 minutes each. Take from your statement those points that you would really wish to stress to us, particularly, but please don't try to read your statements to us in full.

All are of great merit; some are of great length, which isn't necessarily synonymous.

Let's go, Mr. Lennett.

STATEMENT OF DAVID J. LENNETT, STAFF ATTORNEY, ENVIRONMENTAL DEFENSE FUND

Mr. Lennett. Mr. Chairman, during the last several months, members of the environmental community and the business community have met in an attempt to——

Senator Chafee. Now, just as we started, Senator Dodd is here. If you would just slide over.

Mr. Mullen, why don't you just step back and we can let Senator Dodd come in.

Mr. LENNETT. This doesn't count on my 5 minutes?

Senator CHAFEE. That won't count on your 5 minutes; no.

Senator Dodd, we welcome you and appreciate your taking the time to be with us. I know that you have been active in environmental matters throughout your legislative career.

We look forward to your statement which, of course, will be included in the record. If you want to summarize it, that would be perfectly satisfactory.

STATEMENT OF HON. CHRISTOPHER J. DODD, U.S. SENATOR FROM THE STATE OF CONNECTICUT

Senator DODD. Thank you very much, Mr. Chairman. Let me say to you how deeply appreciative I am, not only of the opportunity to appear before you, but also of the tremendous cooperation that you and Senator Stafford have given to my legislative proposals to close loopholes in RCRA. I won't take your time in commenting on all of them.

I would like to commend you and other members of the committee on the work you have done on the whole series of RCRA amendments.

It is certainly more than apparent to all of us that RCRA is a law in need of serious reform. The news accounts of the dioxin-contaminated sections of Newark, N.J. and of Times Beach, Mo. highlight that RCRA is failing to accomplish its legislated purpose of protecting human health and the environment from hazardous wastes.

Congress intent, when it passed RCRA in 1976, was to create a strict system for controlling hazardous wastes from the "cradle to the grave." Today, this system is incomplete, and suffers from some serious loopholes. In fact, as a House Energy and Commerce Committee report indicated last year, as much hazardous waste escapes proper control today through loopholes in RCRA as receives proper regulatory attention—almost 40 million metric tons.

In February, as you know, Mr. Chairman, I introduced some legislation called the Hazardous Waste Identification Act—S. 346—in an effort to identify and to eliminate several of the loopholes in RCRA which allow hazardous wastes to go unregulated. My colleagues, the distinguished chairman of this subcommittee, yourself, and the ranking member of the full committee, Mr. Randolph, joined in the introduction of that bill and in agreeing that these loopholes were among the many crucial issues that needed to be addressed by this subcommitte and this Congress in revising RCRA.

I am delighted that S. 346 is contained in the RCRA amendments that are before us.

I would like to bring to the subcommittee's attention two sections of my bill contained in these amendments which focus on two of RCRA's major loopholes.

The first is the identification and regulation of new hazardous wastes. It is EPA's responsibility, as we all know, under RCRA to identify, characterize, test and ultimately list all wastes which pose a threat to human health and the environment. Under present regulations, a waste is identified and regulated as hazardous either if it exhibits one of a defined set of characteristics or is specially listed as a hazardous waste.

This method for identifying hazardous wastes is sensible in theory. In practice, however, it has been less than effective. This is primarily because EPA has yet to update its original list of wastes to accommodate new wastes. In fact, EPA has not listed any new wastes since 1980.

Similarly, EPA has not revised its characteristics test for identifying hazardous wastes since their inception. Many substances that the scientific community agrees are demonstrably dangerous can pass these characteristics tests with flying colors and subsequently go unregulated. As a result of this lack of effort to list new wastes or to reconsider the characteristics tests, many substances remain unaddressed by RCRA regulations.

The dangers posed by this failure are obvious. For example, despite all we know about the threat posed by dioxin it has yet to be added to EPA's list of hazardous wastes or to be regulated under RCRA. I should add quickly and in all fairness to EPA that since the introduction of this legislation the administration and EPA have focused more attention on dioxin.

These amendments address this deficiency by requiring the Agency to submit a workplan to Congress on their efforts to list new wastes and to develop new hazardous waste characteristics tests within the next 2 and 5 years.

It will also require EPA to list and to regulate dioxin and other hazardous wastes as hazardous within 6 months after this legislation passes. These wastes are evidently widely recognized as hazardous and should have been listed long ago.

I believe this is a sensible approach, Mr. Chairman, to insuring that EPA works swiftly to bring more wastes under regulation. Although I respect the Agency's need to move with scientific caution in determining which wastes are hazardous, I do not believe that caution should mean the paralysis that we have witnessed in the last few years.

The second major loophole which I feel the committee should address is the one that allows hazardous wastes to be exempted from regulation, or "delisted."

As you know, the delisting procedure is properly used in instances where a waste should have been exempted from RCRA regulations. Under existing laws, this is an important corrective measure for situations where EPA has mistakenly listed wastes that are not hazardous or where conditions have altered the threat to the health of people or the environment.

In many instances, however, wastes that continue to pose a health and environmental threat are slipping through the delisting process.

For example, in my home State of Connecticut, it was accidentally discovered that a sludge pile was temporarily delisted even though it still contained hazardous substances including organics. This has proved to be a not infrequent situation in many industrial processes which are listed for particular hazardous substances but not always for all hazardous substances.

These regulatory oversights have occurred because delisting regulations do not address the fact that wastes are frequently composed of numerous hazardous constituents. EPA's existing regulations do not allow the agency to reject a delisting petition if the petitioner's waste contains hazardous constituents in addition to those for which it was originally listed.

The legislation you are considering today would eliminate that deficiency. It would do so by adding three requirements to the delisting process: consideration of other criteria and factors; guidelines for the submission of delisting data; and a deadline for temporary delisting petitions.

The first of those three, Mr. Chairman, is the most important. It would grant EPA the authority it now lacks to consider additional constituents or other relevant factors when evaluating a delisting petition. EPA would have the right to grant or deny a delisting petition based not only on the original elements for which the waste was listed but also any additional hazardous constituents or other factors. In this manner, delisting petitions will be evaluated more closely for various hazardous elements they contain in addition to those for which it was originally listed.

I believe, Mr. Chairman, this approach will help guarantee that only those wastes which pose no treat to health or to the environment will be delisted or removed from regulation.

I understand, by the way, that EPA is proposing regulatory changes along the lines of these modifications. You might ask, why bother with these changes, legislatively if EPA is already addressing them? I would suggest that, even though there is an effort to adopt some regulations in this area with legislative authority behind us, we would have a guarantee that these changes would be made. We have seen all too frequently in the last year or so where the best intentions are not always realized because of a variety of problems internally or politically.

So I think even though EPA is taking this step and it is an encouraging one, including these requirements in the RCRA amendments will guarantee that they will occur.

I am also aware that due to these requirements EPA will have more work. Where will they get the money to accomplish it? I calculate that maybe a maximum of 10 additional people will be needed for the things we have talked about here. The House has talked about some additional funds, in fact, has supported additional funds for EPA.

I think certainly that these funds would be more than adequate to compensate for the two major propositions we are offering in this legislation.

Mr. Chairman, I would just ask that my additional remarks be included in the record. Those are the two major points I wanted to make. I apologize and thank this panel for allowing me to interrupt. I appreciate your support, again, and the support of Senator Stafford for these amendments.

Senator Chafee. Thank you very much, Senator Dodd.

The legislation you introduced is certainly constructive, and as you point out, we included it right in the total amendment that we are proposing.

Senator Stafford?

Senator STAFFORD. I have no questions, no opening statement.

Senator CHAFEE. All right. Thanks a lot, Senator, for coming by, and we appreciate it.

Senator DODD. Thank you.

Senator CHAFEE. Mr. Lennett, we will start the clock rolling again for you.

STATEMENT OF DAVID J. LENNETT, STAFF ATTORNEY, ENVIRONMENTAL DEFENSE FUND—Continued

Mr. LENNETT. Thank you, Mr. Chairman.

During the last several months, members of the environmental business communities initiated discussions to design a legislative approach which would both protect human health and the environment.

We were meeting to design a legislative approach which would both protect the human health and the environment and minimize the burden on small generators in an attempt to address the small generator issue.

Mr. Gerard, who is here representing the chamber of commerce, is here to describe that approach. To avoid wasting time, I won't go into the approach that we recommend which will accomplish both those objectives.

Rather, what I wish to illustrate in my brief time is covered in pages 3 through 7 of my prepared statement, and it concerns the land disposal regulations that EPA issued on July 26, 1982. The theoretical approach behind those regulations is fine. It is to set design and performance standards for facilities, to minimize contamination of the ground water, and to require the owners and operators to clean up contamination when contamination occurs.

However, the way EPA has defined units and facilities in those regulations and the way those regulations actually apply do not protect human health and the environment.

You addressed one of those problems in your bill, at least partially. If you look at our diagram on page 3, if trench "A" prime was constructed today at a landfill, over 6½ years after RCRA was enacted, almost 1 year since the regulations were issued, that trench would still not have to meet the new liners and leachate collection system requirements that the regulations apply to new facilities. The reason for that is the regulations define new units as of the date of permit issuance, therefore, since permitting is not going to take place for years and may never occur at facilities that close during interim status, the new liner and leachate collection systems and standards do not apply to currently expanding facilities.

Now, to examine another loophole, assume that trench "A" prime stopped accepting waste prior to January 26, 1983. There is still no liner requirement, and now the contamination from that unit would not have to be cleaned up according to the requirements in the regulations. The reason for that is EPA has defined regulated units in the regulations as only those units accepting waste after January 26, 1983.

Now, keep in mind the regulations were issued on July 26, 1982, which means a 6-month escape window was provided for people to duck the cleanup requirements in the regulations. We think that is completely improper and urge the subcommittee to impose those cleanup requirements for all facilities accepting waste after July 26, 1982, the date the regulations were issued.

Now, assume that trench "A" prime is a regulated unit, which means assume that it accepts waste after January 26, 1983. If that facility contaminates ground water, only the contamination up to the property boundary line is addressed by the regulations. The contamination of greatest concern to the surrounding community, the contamination that goes offsite, is not addressed by the regulations.

The significance of all these loopholes is impossible to quantify, which is part of the problem, but I will tell you what is known about these loopholes. EPA has identified at least 49 facilities which have totally stopped accepting waste between July 26, 1982, and January 26, 1983, and thus can avoid the cleanup requirement in these regulations.

We have examined the ground water monitoring and inspection reports and the ground water monitoring data at some of these facilities. A significant portion of these facilities are currently contaminating ground water, some as high as levels at 360 times the drinking water standards. At other facilities, the ground water monitoring systems are not capable of detecting contamination, so it is impossible to know whether contamination is arising from those facilities.

In addition, we suspect that a good number of these facilities, if they are not contaminating now, will be contaminating ground water in the near future because they do not meet state of the art design requirements.

One additional point which is extremely important, Mr. Chairman. Those 49 facilities are only the facilities which are completely closing. If in the diagram I gave you, the old trench closed but the new trench "A" prime continued to operate, EPA would have no idea that the old trench stopped accepting waste prior to January 26, 1983. That facility would not have to notify EPA and initiate closure proceedings because the entire facility was not closing; one part of it is still operating. We do not know how many partial closures are taking place in the United States to take advantage of the cleanup requirements in the regulations.

So the full extent of this exemption that has been created for facilities in this escape window is still not known. What we do know is that of those 49 that are totally closing, some are, indeed, a significant problem.

The solutions we propose for the subcommittee are on pages 6 and 7 of the testimony. Apply the corrective action requirements to all facilities accepting waste on or after July 26, 1982, require that the corrective action requirements apply to all contamination from the facility on either side of the facility or, in other words, beyond the property boundary line; and expand what you have done in your bill, by that I mean not only apply the new facility standards to expansions of those existing facilities but limit that expansion to 10 percent and require EPA to initiate a permit proceeding when they receive notification that such expansions are taking place.

This will require the necessary public agency and owner-operator interaction that would take place in the permitting process to take place to evaluate whether those expansions——

Senator **Chafee**. We are going to give you a little extra time, because you have got quite a statement here, but be conscious.

Mr. **Lennett**. OK. I need another 45 seconds. That will enable the permitting process to determine whether those expansions should take place beyond that limited 10 percent expansion. We are not saying to industry in the United States, "you have to shut down all expansions immediately without getting your permit," because getting those permits will take time. However, it seems to us that expansions outside the permitting process should be kept at a minimum. Accordingly, by requiring an expanding facility to apply for a permit, expansion without one will be limited.

Finally, and very importantly, what about the units that stopped accepting waste prior to July 26, 1982? What about those old units at active facilities that may be contaminating ground water?

We believe it should be a requirement that any facility which receives a full RCRA permit and continues to operate under government approval as a hazardous waste facility should be required to clean up the contamination from all the units at that facility. Therefore, the facility will not be in the position of being able to contaminate ground water from an old unit at the west wing of a facility and be permitted to operate a hazardous waste facility at the east wing of the facility.

The public is concerned that these facilities are contaminating ground water. The technical distinction made between RCRA units and old units at the same facility just doesn't make sense from a public credibility point of view. The facilities should be good neighbors. They should not be contaminating the ground water.

In addition, as a technical matter, it is very difficult to make distinctions between plumes. If you don't have the standard in there requiring cleanup from all units, you place EPA in a very difficult position to try to differentiate the pollution from regulated units and nonregulated units at these facilities. Therefore, if you require cleanup of contamination from all the units at the facility, those kinds of distinctions are not necessary.

Thank you, Mr. Chairman.

Senator **Chafee**. We will give you about 3 minutes more if you want to comment. I see the role of citizens. We are aware of that. We have had testimony on that.

Mr. **Lennett**. I am prepared to close my statement now, Mr. Chairman, in the interests of time.

Senator **Chafee**. OK.

Mr. Gerard?

STATEMENT OF JOSEPH G. GERARD, VICE PRESIDENT, GOVERNMENT AFFAIRS, NATIONAL ASSOCIATION OF FURNITURE MANUFACTURERS

Mr. **Gerard**. I am Joe Gerard, vice president of government affairs for the National Association of Furniture Manufacturers and Southern Furniture Manufacturers Association. I am appearing today on behalf of the Chamber of Commerce of the United States.

The chamber strongly supports a sound environmental management of all wastes. At the same time, the chamber advocates the prudent use of resources and the application of reasonable, practical and balanced controls to assure environmental quality without excessive paperwork and expense. Our testimony today is directed at the problem of the so-called small generators, businesses that produce 1,000 kilograms per month of hazardous waste or less.

We support the basic management approach for small amounts of hazardous waste as proposed in section 4 of S. 757. We believe, however, that this management approach can be improved by fine tuning the legislation thereby focusing EPA's efforts in this area.

As I am sure you are aware, the Environmental Protection Agency has the authority to regulate all hazardous wastes. In the current regulations, as developed by the Carter administration, it has chosen to exclude small generators at the 1,000 kilograms per month benchmark. This is perhaps an arbitrary figure. The question is at what benchmark or decision point is most of the waste captured into a proper yet rational system?

There is a debate over how many small generators produce how much hazardous waste. Consequently, estimates vary. But whichever source's numbers are used, the conclusion is the same. There would have to be a great deal of effort and public expense to control a very small portion of the waste, and to change the benchmark from 1,000 kilograms per month to some lesser amount, without very careful consideration of small business concerns, would further risk complicating or achieving the necessary environmental protection.

It appears that part of the interest in lowering EPA's small generator exemption level to 100 kilograms per month is based on the belief that similar regulatory programs in place in more than 20 States cause no burden for small business. Based on what we learned in a recent survey, this is an erroneous conclusion.

Although State hazardous waste laws affect small businesses, the State agencies apparently do not educate the business people. This conclusion was reinforced by interviews with local chamber officials. To assume that a similar Federal regulatory program would not be overburdensome on small business is not justified.

There is no question that small businesses are willing to do their share. However, the basis for responsible action is knowledge of what constitutes hazardous waste and an awareness of applicable waste management regulations.

The results of the small business survey are included as an appendix to my complete statement.

Balancing the proper environmental control of the hazardous wastes from small generators with reasonable regulatory and financial cost to small businesses is possible.

After debate over this issue last year, the chamber worked with several business and environmental groups and committee staff to find an appropriate regulatory program to capture hazardous wastes without overly burdening the generators.

While the chamber does not offer specific language for such a proposal, the following guidelines are recommended: Provide for identification, segregation, and notification to the transporter by a generator of more than 100 kilograms per month but less than

1,000 kilograms per month of hazardous waste when the wastes are shipped off-site by a self-enforced program not dependent on extensive regulatory action; require waste transporters to notify disposal facilities of the quantity and hazardous nature of the waste; require such wastes to be managed in an appropriate hazardous waste facility; allow flexibility in hazardous waste identification, storage, transport, and tracking so that the small generator is not unnecessarily burdened by complex regulations and procedures; encourage reuse, recylcing and materials recovery from wastes—the most environmentally sound method of disposal; there has to be an understanding of small generators 'waste management practices to determine what level of Federal control is necessary to protect the environment before promulgation of regulations, and this may require a study; and establish an extensive Federal and State education program for small generators to assure compliance with RCRA.

If the legislative approach in section 4 of S. 757 is targeted on those firms that generate more than 100 kilograms per month, a significant portion of the Nation's hazardous wastes will be captured. However, if small generators are not educated for compliance with RCRA or if they are unfairly harassed for their lack of understanding of a complex regulatory program, they may not be able to control and dispose of their wastes properly and will contribute to the environmental problem rather than to the solution.

Thank you very much.

Senator **Stafford** [presiding]. Thank you very much, Mr. Gerard. We appreciate the speed with which you got that done.

Mr. **Gerard**. Thank you.

Senator **Stafford**. The next witness will be Mr. Mullen, director of governmental relations, Conversion Systems, Horsham, Pa., representing the National Solid Waste Management Association.

STATEMENT OF HUGH MULLEN, DIRECTOR, GOVERNMENT RELATIONS, CONVERSION SYSTEMS, INC.

Mr. **Mullen**. Thank you, Senator.

I am also serving as chairman of the Institute of Chemical Waste Management, an official institute of the National Solid Waste Management Association.

NSWMA represents more than 2,000 private companies engaged in the collection, treatment, processing, and disposal of solid and hazardous wastes. The Institute of Chemical Waste Management is composed of those firms offering treatment and disposal services for hazardous wastes under RCRA.

At the outset, I would like to emphasize that there is considerable confusion among many people regarding RCRA approved landfill facilities. There are no such facilities in operation. There is no operating history, and yet they are identified with the uncontrolled facilities of the past. There is a major difference and is unreasonable to attribute the same problems to RCRA facilities. We endorse the statement of Senator Mitchell yesterday that preventive action is far less expensive than remedial action. We believe that all facilities should be brought under the regulations as quickly as possible, and those regulations should be given a chance to work before drastic changes are made.

With minor exceptions, we endorse and support S. 757, and we hope and expect the committee will approve it in substantially its present form.

We encourage the committee to incorporate, as an objective of the 1983 authorization, the twin goals of accelerating the pace of RCRA implementation and closing present loopholes in its coverage.

Section 4 of the bill has as its objective closing the exemptions presently available to small quantity generators. The present nonsystem of regulating small quantities refuse haulers and operators of resource recovery and sanitary landfills to unnecessary and sometimes catastrophic risks. We support the provision in S. 757 that requires commercial and industrial generators of hazardous wastes to provide notification of their waste transporter and requiring the transporter to provide notice to the treatment or disposal facility.

That is the essential element of the regulation, and we support the section as written.

We believe that the notification called for in this section will be sufficient to eliminate the danger from small quantities of hazardous wastes. If there is some doubt on this point, we suggest that the legislation be amended to exclude the possibility of depositing any hazardous waste in nonhazardous waste disposal facilities rather than requiring the upgrading of some 13,000 sanitary landfills for that purpose.

Yesterday this committee took testimony on land disposal issues which have been raised in conjunction with the Solid Waste Disposal Act. At that time, a member of our industry, John Puett, testified on his experience with deep well disposal and shared with this committee his concerns in the land disposal area. We wholeheartedly concur with his prepared testimony.

Senator STAFFORD. Mr. Mullen, could you conclude in about a minute now? We have run about three over.

Mr. MULLEN. Certainly.

Let me, then, go if I may to page 11 and discuss the two exceptions and recommendations we have. Section 8 provides that EPA study the possibility of certifying nongovernment inspectors to conduct these inspections. We believe that that study would be a waste of money. We are anxious to improve inspections and expand the ability of EPA to enforce the law and thus enjoy the public confidence. But we suggest there are many problems associated with deputizing nongovernment persons to perform these governmental responsibilities, not the least of which is a conflict of interest if the disposer hires an inspector.

Section 11 of the bill creates a new procedure for the review of the final regulations under the act. We are satisfied that the present system of reviewing these regulations in the U.S. Court of Appeals for the District of Columbia has advantages which outweigh the alternatives suggested in the bill. Under the present system, judges from the D.C. Circuit have developed an expertise on Federal regulatory matters which, to our mind, outweighs any merits of having these matters considered in other circuits throughout the country.

We respectfully suggest that two additional important sections be added to your bill. These sections would address problems which we believe are clearly perceived by members of the committee; the continued existence of the unregulated discharge of wastes into POTW waste water systems and the long, stretched-out, protected timetable for RCRA permitting.

The repeated delays from promulgation of the present treatment standards, coupled with the exemptions under RCRA for wastes being discharged off publicly owned treatment areas is resulting in considerable discharge of wastes in a virtually unregulatory manner. EPA has identified, in terms of a court agreement, 21 industries for which pretreatment standards are being developed. We propose that you add a new section to S. 757 to require that 6 months following enactment, wastes generated by each of these 21 industries would lose their exemption under RCRA unless EPA has completed the rulemaking for that industry.

Finally, since this legislation was aimed at closing loopholes which currently exist in the framework, let us suggest you consider the single largest loophole in the federal system hazardous waste programs, namely, that only 14 facilities in the country today have been measured and approved under RCRA standards. That means EPA has been able to permit an average of one facility for every 6 months since RCRA was enacted.

At that rate it will take another EPA 8 to 10 years before it is able to complete its permitting cycle. We consider the extended period of time before all interim status facilities receive RCRA permits the biggest loophole under RCRA because it continues to allow most of the facilities handling most of the waste, in the country, to continue in a substandard regulatory mode for years to come.

I will then omit the rest of the testimony. It is there for the record. We urge that the committee pass the bill as quickly as possible.

Senator **Stafford**. Thank you, Mr. Mullen. I am sure Senator Chafee made the point that every witness' statement will appear in the record in addition to the oral comments that may flow from it, as well.

The next witness will be Mr. Herbert Spivack.

I welcome the presence of the ranking minority member of the subcommittee, Senator Mitchell. Did you have any opening statement, Senator?

Senator **Mitchell**. No, Mr. Chairman, I do not. Thank you.

Senator **Stafford**. All right. Then we will go ahead, Mr. Spivack, with your testimony.

Mr. **Spivack**. Thank you, Senator. I would like to address the members of the committee.

I am Herbert L. Spivack of Mereco Products Corp., West Warwick, R.I. I had hoped that Senator Chafee would be here.

Senator **Stafford**. We would be willing to go out of order here if you would like. He will be missing for about another 10 minutes.

Mr. **Spivack**. I do have some specific concerns with respect to the testimony that was given yesterday on solid waste.

Senator **Stafford**. Why don't we skip over you, Mr. Spivack, then.

Mr. **Spivack**. Thank you, sir.

Senator **Stafford**. And let Mr. Contney, chairman of the Laundry Cleaning Council, go next, and then we will come back to you, Mr. Spivack.

Mr. **Spivack**. Thank you.

Senator **Stafford**. Is that agreeable with you, Mr. Contney?

STATEMENT OF JOHN J. CONTNEY, EXECUTIVE DIRECTOR, TEXTILE RENTAL SERVICES ASSOCIATION OF AMERICA

Mr. **Contney**. Yes.

Senator Stafford, Senator Mitchell, we appreciate this opportunity to testify before your subcommittee. My name is John Contney, and I am chairman of the Laundry Cleaning Council. We represent six national trade associations in the laundering and drycleaning industry. In order to save time, I know that we are getting all of our written testimony accepted into the record. We are testifying on the proposed amendment to the Resource Conservation and Recovery Act listed as Senate bill 757.

The amendments could have significant impact on many of the approximately 72,000 businesses in the drycleaning and laundry industry.

Of these, approximately 43,000 employ an average of about 8 employees per plant. They average annual sales of $140,000. The remaining businesses have no paid employees and average annual sales of $17,400. We are really talking about small business. The Laundry Dry Cleaning Council, on behalf of its members, many of whom are these small businessmen, fully supports Senate bill 757. We believe that the bill represents the most constructive legislative approach yet offered to improve health and the environment in a balanced manner. We support the concept of a clean and nonhazardous environment.

Our position is to maintain the existing 1,000 kilograms per month small generator exemption as modified by S. 757 until your study is completed. If the exemption is lowered before a study is made, it will have a serious economic impact on our industry, or if land disposal is banned, you will increase or costs tremendously, as much as three times our annual profit. This will only be for very small quantities of solvents.

We document these costs in our written testimony. The results might be to make many small businesses marginal, and just how many is very hard to quantity.

We fully support S. 757, but a study is essential. There are very small quantities of drycleaning solvents involved. There are difficult technical problems. We urge you to require the EPA to study the problem carefully, as we are talking about thousands of small businesses that have no alternatives.

If you lower the small generator exemption or ban land disposal for drycleaning solvents, you could seriously injure our entire industry. We have not seen any evidence that small amounts of drycleaning solvents would pose any significant environmental problems or burdens. We urge you to study the problem. We don't have the answers, but we offer you our help in any way possible.

Here are six suggested refinements in the legislation. One, the legislation should direct the EPA to study the small generator issue and develop a regulatory program governing the disposal of wastes generated in quantities of less than 1,000 kilograms per month only if a need is found for such regulation; two, the legislation should direct the EPA to study the land disposal issue in conjunction with the small generator study. Any ban on land disposal could effectively eliminate the small generator exemption for that type of waste. The legislation should specify that land disposal prohibitions should not apply to presently exempted small generators until the EPA promulgates such regulations for land disposal; three, if a need is found for regulation of small generators, the legislation should direct the EPA to develop a program of mutual agreement between generators and transporters for containerization and handling of these small quantities of hazardous waste. The EPA should be directed to develop a program to allow waste being hauled to a sanitary landfill by a transporter to be containerized in the most efficient and effective method mutually agreed to by the generator and by the transporter; four, before the legislative language is final, it would be prudent to consult the EPA as to the amount of time they need to adequately consider the issues, because several hundred listed or identified hazardous wastes may be covered by this legislation; five, solid wastes contained small quantities of a specified hazardous waste—specifically, we are talking about our dry cleaning residue and filter materials—should continue to be exempt from regulation as hazardous materials and should be exempt from land disposal requirements below those levels to be specified by the EPA after the study; six, the legislation should exempt from the blend and burn provision those fuels classified as hazardous solely due to their ignitability.

Specifically, petroleum solvents used in drycleaning plants should be exempt since these solvents produe more energy than is required to burn them, leave no residue, and do not violate emissions standards.

In summary, the Laundry Dry Cleaning Council supports the major provisions of S. 757. We request that the Subcommittee on Environmental Pollution consider these six recommendations for change offered by the Laundry Dry Cleaning Council.

Thank you.

Senator **Stafford**. Thank you very much.

Mr. Spivack, it looks as though we are coming to you in any event.

STATEMENT OF HERBERT L. SPIVACK, PRESIDENT, MERECO PRODUCTS DIVISION, METACHEM RESINS CORP.

Mr. **Spivack**. Thank you for waiting and taking me out of order, Senator.

Again, let me introduce myself. My name is Herbert Spivack. I am with Mereco Products, a small company in West Warwick, R.I. Today I am testifying on behalf of the Society of the Plastics Industry, of which we are members.

Our particular group, the epoxy resin formulators division, is one of the operating divisions of the Society of Plastics Industry. There are 70 such operating units, and the society has 1,200 member companies. We represent more than 95 percent of the whole plastics industry in the United States, and our members are responsible for about 75 percent of the domestic sales of plastics.

Today, the testimony that I intend to give which I understand will be published in the written record, covers section 4 of Senate bill 757 concerning the small quantity generator.

SPI, as well as my company, is particularly concerned with that provision. Mereco Products began about 25 years ago with one person. We now have 17 people. We operate in the high technology part of plastics, epoxy resin chemistry, silicones, and so forth. We have some unique problems with this small generator rule.

If there is a limit or the limit is brought down below 1,000 kilograms, this would severely impact upon our industry as well as upon some of the members of what we call the reinforced plastics industry, who do some of the same things that we do.

Basically, without burdening you with too much testimony on this subject, I would like to explain that epoxy resins have a unique facility. If you go to a hardware store, you pick up two tubes; you put them together, and you can harden the resin. This reaction produces an inert material that if disposed of will not harm the environment.

We perform the same procedure in our epoxy plants in producing our product. However, at the end of the day there may be leftover material that could be characterized as waste. If we were to discharge the wastes or try to get rid of them in accordance with RCRA the components become classified as hazardous wastes.

However, with leftover batches or materials that we have to dispose of, we could react them at room temperature; making them a inert solid waste and dispose of them without any harm to the environment. It is important to our industry that EPA have the flexibility to allow this type of treatment that in actuality is safer for human health and the environment than disposing of the hazardous wastes individually.

Although we use the word treatment, in this case, we are talking about reaction of polymeric plastics, and there are several classes of these which people are commonly familiar. The epoxies fall into that class. Polyester resins, which are used for the manufacture of automobile repair compounds; are materials that also can be deemed nonhazardous. They add a cream hardener to a polyester resin and the material hardens to an inert solid. There again, the manufacturer of the resin has what we call tail ends of batches. These tails have must be disposed of as waste. In many instances, if we hold them beyond the 180-day period until they build up enough quantity, we would then be defined as a storage facility.

My own company had applied for a storage facilities permit. It took 300 manhours of a Ph. D. chemist's time to write the manual for a storage facility and then we all decided we didn't want it. so we then had to reapply to EPA saying we didn't want to be defined as a storage facility. It wasn't worth the hassle for a small company to become involved. However, the State EPA wanted our manual. They thought it was a pretty good representation of the kind of work that was done, so we sent it to the State of Rhode Island, Department of Environmental Management.

Senator **Mitchell**. Did you charge them for it?

Mr. **Spivack**. Oh, no. We should have, perhaps. Certainly, the cost was excessive as far as the company was concerned. I think small companies who don't have the facilities to comply with these rules and regulations and have to investigate them are put in a severe state of depression, to try to get this information. In fact, in our plastics society, the epoxy resin formulators division has staff personnel as well as people in the group this information gathering function for the members. For instance, Dexter Paper Co., has allowed their full-time staff person to transmit to our group interpretations of all of the regulations. This helps the small user. We have many small companies in our group who get this information disseminated to them as members of the Society of the Plastics Industry.

This helps the small generator comply with the rules.

I do want to talk about one other aspect of S. 757. That is that there are chlorated and halogenated materials that are inert and not hazardous in any way. Everyone knows about the teflon frying pans, and vinyl chloride upholstery in automobiles or plastic bags used as blood bags or for food wrap and that sort of thing.

These products, although they contain halogenated organic materials, are not a hazardous waste. The wording of any legislation on this issue should clearly avoid inadvertently banning the disposal of these articles in landfills.

For instance, in our own field, in high technology, aerospace, and computers with which we are involved in order to meet the fire retardant regulations of some of these materials, we use halogenated products. In their raw material form, they are hazardous wastes. However, when they are fully reacted and used in an electronics plant or by people who react them with a socalled hardener, they become totally innocuous, nonreactive and cannot hurt the environment. The reason for the use of these materials is that they are highly chemically resistant. They cannot be broken down.

In fact, one of the problems we have in this industry where we cater mostly to electronics is that a user will come to us and say,

> We have a secret that we wish to put into a circuit. We don't want anybody to look at it. Can you give us an epoxy resin to coat this particular circuit so that no one can break down the system and find out what our trade secret is?

We do that, and then they turn around and say, "Have you got something to dissolve it? We made a mistake. We want to find out what is in it now."

I say this to emphasize the fact that there are instances where materials that have hazardous components can be made inert.

I believe I have covered most of the points that I wanted to cover. I did have some other points with respect to siting.

I am also a member of the Environment Affairs Committee of the State of Rhode Island through the Federated Chambers of Commerce Association of Rhode Island. With respect to Senator Chafee's concerns about siting, being in Rhode Island, I understand his gloomy point of view on siting.

I think we are no different in Rhode Island than the rest of the country.

Senator **Stafford**. If you like, we will hold on to that until he gets here. We will give you a little extra time at that time.

Mr. **Spivack**. Thank you very much, this concludes my testimony.

Senator **Stafford**. All right. Before I give the gavel back to Senator Chafee, I would like to propound one question to the panel for your reaction. That is this: I sat through the hearings this year and last year, not to mention our work on Superfund over the last 2 years, and the year before that. It seems to me there have been a couple of consistent themes: First, we should generate as little hazardous waste as possible; and, second, whatever hazardous waste we generate should be disposed of or treated as safely as possible; that is, with the best available methods.

My question, gentlemen, is, Do you agree with this, and would you support an amendment establishing these two goals as explicit requirements of law?

Mr. **Contney**. Senator Stafford, may I respond to that?

I am John Contney from the Laundry Cleaning Council. I think that our industry would fully support those two goals, the two goals, first of all, as stated to dispose of as little hazardous waste as possible.

We in the drycleaning field are going through really a rather terrific technical revolution. We are not a chemical-producing industry, we are a chemical-using industry, and we reuse our drycleaning solvents. We are working on things right now to materially reduce the amount of solvents we will actually dispose of because we are getting more efficiency and reuse, so we would highly support that.

The question, I guess, is, on your second point, we would certainly support disposing of these as safely as possible all things considered, including the cost of disposing of these materials.

Again, if land disposal is banned for drycleaning solvents, and if the only alternative is high temperature incineration, the costs for this is four times our average member's annual profit.

So we just urge some caution in how these are done.

Senator **Stafford**. Thank you.

Is there further comment from the group?

Mr. **Lennett**. The environmental community would certainly support that, Senator Stafford.

I would refer to page 20 of my testimony where we talk about EPA's failure to do the second part of what you were talking about, which is requiring best available technology or the best technology out there to minimize waste migration into the environment in the land disposal regulations.

The new surface impondment requirement only requires oneliner and no leachate collection system.

Senator **Stafford**. Thank you.

Is there further comment?

Mr. **Mullen**. Yes. Could I address that, sir?

We support the first part of your first goal of producing as little waste as possible.

We think that is very commendable.

I have concern about your second goal, and that is, that you said as safely as possible. We would support anything that protects the health and the environment, and you can go to extremes if you say as safely as possible, and that can demand technology beyond what is required.

Senator **Stafford**. I said with the best available methods.

Mr. **Mullen**. Fine, except that we would not like to see any acceptable or usable disposal system legislated or regulated out of use.

If there are alternatives, they should be permitted.

Senator **Stafford**. Mr. Gerard, did you have any comment on that?

Mr. **Gerard**. Mr. Chairman, I would say that we would support the goals and recognize that they are broad and generally goals.

I would like to see the language and have an opportunity to comment on it. We would be pleased to do so.

Senator **Stafford**. Sure. I saved Mr. Spivack until last, because, Mr. Chairman, we kept Mr. Spivack in reserve until you could get back here. He had a few comments he wanted to offer for the benefit of Rhode Island as well as the rest of the country.

So I will turn the chair back to you and recognize Mr. Spivack for any additional comments he wanted to make.

Senator **Chafee**. Fine.

First, thank you, very much, Senator Stafford, for holding the fort here. I know that you have a busy schedule, and I appreciate your taking care of things while I had to go to that press conference.

Yes, Mr. Spivack, particularly on the siting you are interested?

Mr. **Spivack**. First, I want to thank Senator Stafford for putting me out of order and waiting for your return. Unfortunately, you came back a little late, but the testimony is in the record, so I am sure you will be reading it.

I did have a few comments. I sat through yesterday's testimony on siting, and I was saying before that I shared your gloomy feeling on siting with respect to being able to have local sites for disposal of hazardous wastes.

I think the idea you proposed is excellent about no Superfund unless you have a site available in those States or they will make efforts of some sort. I think that will help Rhode Island.

Also, there was some answer given yesterday; I think you asked a question, Why is it so difficult to find a site? Why are the people so against it?

I think one of the reasons is credibility. I have here—I am speaking personally, now. I am not speaking for the Society of Plastics Industries. I have here an article from the Wall Street Journal, Tuesday, May 31, called "Dioxin Hysteria."

It pretty much points out in this article, very authoritatively, how poisonous and how toxic is dioxin, really? From a chemist's point of view, there is a great credibility gap, because in very small amounts it isn't that toxic, and I would like to point out this comparison: When I grew up, one of the worst poisons available was strychnine.

Senator **Chafee**. What?

Mr. **Spivack**. Strychnine. It was used as a rat poison, and on the other hand, a few drops in orange juice or water was used to treat heart disease. Yet large amounts could also kill humans.

The question here is degree. I think we have lost all perspective on degree. The newspapers and the media—unfortunately, I know they are here and aren't going to like it—but they hyped it, and people listen to it.

The environmentalists get upset, and the people in Rhode Island get upset because industries are discharging wastes and no one knows what these wastes do.

I will give a specific example. When I was a young chemical engineer, I worked in an electronics plant until I became research director, and we manufactured materials of polychlorinated biphenyl.

We literally swam in the material. In fact, one of the engineers who worked with me called me the other day and said,

> Herb, did you know that you cannot be buried when you die? You probably have more than the maximum allowable percentage of polychlorinated biphenol in your body.
>
> Therefore, you will have to go to a hazardous waste treatment facility to be buried.

Even that has changed. The present statistics on that indicate that body retention by human beings has diminished—it eliminates it over a period of time.

The recent surveys by MIT and Harvard on asbestos have indicated that when you factor cigarette smokers out of the group, you have virtually no greater incidence of cancer than you do in their equivalent statistical population sample in nonsmokers.

I think, perhaps, personally—and I can say this with all impunity because I used to smoke three packs a day and I now don't smoke at all—that if we were to concentrate as much effort on removing cigarette smoking from our environment—and I fear the Tobacco Institute and the associated lobbies are going to dislike me intensely—but if we spent as much effort and time on that as we do on trying to control hazardous wastes and control so-called toxic wastes by EPA's definition, that I think we would soon see our statistics on cancer and other related illnesses fall away and be diminished.

However, this is away from the subject.

Senator **Stafford**. I was going to say, Mr. Chairman, it is a good thing Senator Helms isn't here this morning.

Mr. **Spivack**. Getting back to RCRA, as a small generator in the State of Rhode Island, we are in the epoxy resins field. Rhode Island has about four companies that do what we do; small companies, all less than 20 employees; all high technology.

We would be severely hampered if this limit would be set below 1,000 kilograms.

Senator **Chafee**. I want to ask some questions on that.

As I understand, you have not had a chance to ask any questions, Senator Mitchell?

Senator **Mitchell**. That is correct.

Senator **Chafee**. All right. We will start the questioning now.

First, Mr. Spivack, I appreciate what you have said. I would like to ask the panel as a whole about this siting question. Most of you weren't here yesterday, but the problem is, as I see it as a problem—maybe I am wrong—is that there are not adequate hazardous waste disposal sites. That includes the full pinnacle, not just landfill or RCRA approved sites, but I mean the high technology type of disposal facilities.

My question is, representing the organizations you do, do you find that your people have trouble disposing of their hazardous wastes, or is that it just may be a little expensive but there are no real problems?

Let's start with Mr. Gerard.

Mr. GERARD. Senator, the only personal experience I have with it was when I was preparing my testimony for the House side. I happened to have a discussion with a furniture manufacturer from Michigan, and he said the only problem that they had run into was the fact that they had to ship it out of State. Where they ship it to, I don't know, but I would imagine that the cost for shipping out of State would be much greater than if the sites had been located within the State of Michigan or possibly even within the county within which this particular facility was located. But I share the concern that you have on siting and would hope that tremendous additional sites would be available as small generators would be brought into the system.

Senator CHAFEE. My suggestion, which hasn't been greeted with overwhelming enthusiasm, is that there be some stick involved with a carrot of the Superfund moneys.

In other words, every community in every State is terribly anxious to get those sites cleaned up, and that is right; that is the way it should be. They are prepared to accept large sums of Federal money with the ratio being 90 percent Federal and 10 percent local or, in some instances, 100 percent Federal depending on the emergency.

It is my thought that we are not getting anywhere in the long run if we don't have the right kind of sites available. It is all well and good to clean up the valley of the drums, but if you don't have the right kind of licensed site somewhere or the approved facilities, then you haven't made any progress; you are just going to be back cleaning up another road site somewhere. So I was brooding over whether to include a requirement that no State could get Superfund money unless they had an approved site within their boundries or were part of an interstate compact that made an approved site available.

What do you think of that, Mr. Mullen?

Mr. MULLEN. I think you are correct that some kind of a carrot is required.

Senator CHAFEE. I didn't hear you.

Mr. MULLEN. I think you are correct that some kind of a carrot is required. However, I think withholding Superfund money is probably politically untenable. I don't think the public would react very favorably to it.

I agree that siting is a very serious problem. My company has attempted six siting ventures. We have filed with six different States. So far we have not succeeded in any of those six. We have permitted one site in the history of our company. But the six, even in a case where the county authorities, county commissioners, invited us in to correct a problem that they created themselves, in their own facility, we were denied a permit, because to make that economically viable, we had to bring in out of county waste, and the local citizens would not accept that.

Senator CHAFEE. The witnesses yesterday pointed that out, that the capital investment is so substantial that local generators cannot support the facility, and, thus, it requires out of county, out of State, out of town, out of whatever, hazardous waste generators to come in and use it.

That seems to be the major stumbling block.

Mr. Spivack, have you got any thought?

Mr. SPIVACK. Yes; there was some testimony presented where someone suggested that the sites that have to be cleaned up, some of them could be used as a full range facility. It occurred to me that, after thinking about it, that since the sites are already there, it would be good to build a cleanup facility right there at the site of the hazardous wastes that are right there using new technology of portable equipment, and, perhaps, the Superfund could be utilized for something like that and you have accomplished one goal, anyway, of having a site that probably could be further utilized in the future after cleanup. Mainly because you have demonstrated safe cleanup methodology to restore public confidence.

Senator CHAFEE. I think yesterday they weren't talking about using a Superfund cleanup site for a licensed site. I think what they were talking about was expanding existing landfill sites or sites that are already licensed for a lower use to move into the higher technology.

Mr. SPIVACK. That, as well, but I thought from a politically expedient point of view that since the site already contaminated has to be cleaned up and people are quite fearful of the material being transported away from the site, it could be utilized, the whole concept could be put together and where we are going to clean this site up anyway we could have a disposal by incineration or whatever new technical methodology we wish to use at the site.

Naturally, all sites do not qualify for this type of disposal methods.

Senator CHAFEE. I am not as sanguine as you. I think you would be lynched in those situations where you have gone in and you have been the hero; you have cleaned the place up and then hot on the heels of that you announce, "And now we are going to put in here a hazardous disposal site."

I think they would run you out of town? But maybe not.

My time is up.

Senator Mitchell?

Senator MITCHELL. I will just comment, Mr. Chairman, further. Your remarks that the problem, Mr. Spivack, that exists is that many of these sites were selected without any regard for proper planning of site location. Indeed, that is a major part of the problem. To suggest that because of the random occurrence of someone happening to dump some toxic materials someplace, we should now use that as a site, it seems to me, to really avoid the central problem, which is that there was no planning going into the selection of the initial sites.

I would like to say, Mr. Spivack, I don't want to use my time to get into a debate, but you made some sweeping statements about asbestos and dioxin.

The thrust of your remarks appear to be that they are not very serious problems and that it is the media that has made them so. I would just say that I strongly disagree with you on that, and I think that they are very serious problems, and there is substantial scientific evidence to that effect.

What you said, really, your exact words were "dioxin is not that toxic."

What does that mean?

Mr. SPIVACK. In the quantities, for instance, at Times Beach, I think it is pretty well agreed in the scientific community that we have no evidence that that particular degree of toxicity is harmful over the long span.

For instance, in this article in the Wall Street Journal, which pretty much sums up the known data today in the scientific community, they talk about two explosions that occur where dioxin was disseminated over wide areas, one in Italy, and one here in the United States at a Monsanto plant, and these have been monitored for about 8 years. There is no—for instance, it says, "Except for the skin, no organs or body functions were impaired; no derangement of gestation; no fetal mortality and no gross malformations; no gross retardation; no side genetic abnormalities have yet occurred."

I think that is a pretty strong statement to be put in the Wall Street Journal, which is a very authoritative statement.

Senator MITCHELL. When you indicted the media, you didn't include the Wall Street Journal.

Mr. SPIVACK. I am not indicting the media generally.

Senator MITCHELL. You gave a very strong indictment about the media.

Mr. SPIVACK. There are some strong accusations. What I am indicting is the following: You hear big hype about Love Canal, but you don't hear the same statements in the national media and the followup stories about Love Canal, as well.

Senator MITCHELL. I think you are suffering from a common human weakness from which we all suffer, perhaps most of us especially in public office, which is that those who agree with our preconceived notions we tend to regard as higher credibility than those who do not.

At any rate, I don't want to waste my time on this, because that is really not central to this meeting.

Mr. Lennett, I was not here during your statement, so I don't know how much of your written statement you read, but I would like to ask you a question about a statement on the first page of your written statement where, toward the bottom, you say, "Almost 7 years after passage of the act, RCRA," your first statement there afterwards is that "significant quantities of hazardous wastes are still going to regular municipal landfills, and huge quantities are burned in an unregulated manner."

Can you be more precise and provide more detail about what you mean when you use the words "significant" and "huge"?

Mr. LENNETT. There are various estimates about how much waste is outside of the regulatory system by virtue of the small generator exemption. The ranges are anywhere from 1 to 7 percent, whether you are looking at EPA data or OTA data. That is what I mean by the terms "significant" there; 1 to 7 percent of 40 million tons is significant.

Senator MITCHELL. One to seven percent of the total quantity of 40 million metric tons?

Mr. LENNETT. That is right, on a yearly basis.

In terms of burning in an unregulated manner, the estimates that I have seen is anywhere up to 20 million metric tons are burned in boilers in an unregulated manner on a yearly basis.

Senator MITCHELL. So you estimate up to 20 million tons.

Does any other member of the panel either agree or disagree with that statement?

Mr. MULLEN. I think we agree generally with the statement. I cannot vouch for the numbers, but there are many tons that are burned unregulated.

Senator MITCHELL. Then let me rephrase the question.

Does any member of the panel have any basis for disputing the statements made by Mr. Lennett?

[No response.]

Senator MITCHELL. There being no response, we may take that as a negative answer from each of the witnesses.

Your next statement, Mr. Lennett, was, "That major hazardous waste strains remain unidentified for regulatory purposes, including dioxin."

Does any other member of the panel have any basis for disputing that statement?

[No response.]

Senator MITCHELL. Once again, there is no response, which we may take as a negative.

The third statement is that, "Inadequate land disposal regulations fail to protect human health and the environment."

Does any member of the panel dispute that?

[No response.]

Senator MITCHELL. That is obviously not a factual statement but a subjective judgment.

Does any other member of the panel disagree on that judgment?

Mr. MULLEN. I am not quite sure of the basis for that statement, but we are convinced that hazardous wastes can be disposed of in landfills safely. Specifically, what Mr. Lennett is referring to, I would have to ask him.

Senator MITCHELL. You are convinced that it can be?

Mr. MULLEN. Yes, sir.

Senator MITCHELL. Hazardous wastes can be, so you would not support a policy that would discourage landfill disposition of hazardous wastes?

Mr. MULLEN. Certain wastes, yes. There should be limitations on what wastes can go and specific wastes should be treated before they do. However, there are always going to be residues from all processes that cannot go anyplace else, and there is always going to have to be landfills, and those wastes can be handled safely and successfully in the landfills.

Senator MITCHELL. The final statement on that first page of Mr. Lennett's statement is that, "Little has been done to encourage the use of appropriate technologies to recover, recycle, and treat hazardous wastes."

Does any other member of the panel disagree with that statement?

Mr. CONTNEY. Senator Mitchell, I would like to respond to that, because in the drycleaning industry, we would dispute that. As I testified earlier, we are doing a tremendous amount of technical work to reduce the amount of actual drycleaning solvents we have left over, because we recycle this as much as possible.

For example, we expect that we will be able to reduce the amount of drycleaning solvent left over, that is, that must be disposed of because it cannot be further recycled, to about on the average of 5½ gallons of drycleaning solvent on the average location per year.

I guess the question we have is, we have not seen any evidence from the scientific community to determine at what level this becomes a problem.

For example—and we are dealing in our industry with huge numbers of businesses. We are dealing with 72,000 businesses. We understand that there are only 270 hazardous waste landfills in the United States.

Where do 72,000 businesses get the money, investment, and costs back to distribute to 270 landfills?

Further, we understand in Massachusetts, there are no hazardous waste sites; the closest land disposal is in Alabama. We are just dealing with huge numbers of small businesses that have got just huge distances to dispose of minute quantities.

Senator MITCHELL. Mr. Contney, could I ask you to provide in detail to the committee when you say you are doing a tremendous amount of work to give us some specific information on what is being done where; some documentation of the statement you made?

Mr. CONTNEY. Yes; we can.

Senator MITCHELL. I would say my time is up, but let me make a concluding statement. You are quite right, of course, that this creates a problem for the small businesses, and the numbers of businesses you cite, 27,000, also supports the need for some action, because while the amount disposed by any one of those businesses is not substantial, when you aggregate that amount by 72,000 businesses just in your industry—that does not include any of the other industries that are represented here—it gives you some idea of the dimension of the problem, which is, in the aggregate, national in scope.

I will resume later, Mr. Chairman, after you.

Senator CHAFEE. Fine. Thank you, Senator Mitchell.

Here is the problem we are confronted with, gentlemen, on this panel: That is, the small quantity generator. I know that many of you have testified. I wasn't here for the whole testimony, but I believe Mr. Gerard did testify that, "Don't change the rules as far as small quantity generators."

I may be taking you out of context, but how many, taking a poll here, of the industry groups you represent, what is the percentage of, in each of your industries, of small quantity versus large quantity generators using the guidelines of 1,000 kilograms a month?

Let's start here.

Mr. **Gerard**. Frankly, I cannot answer that question, Mr. Chairman. That is, further study on that, I think, would be quite helpful. I would say this, though, in response to your initial remark: That the chamber's position is not a position that further regulation below 1,000 kilograms a month is inappropriate.

Senator **Chafee**. I was corrected on that. I apologize.

Mr. **Gerard**. I have no further comment.

Senator **Stafford**. Mr. Chairman?

Senator **Chafee**. Yes.

Senator **Stafford**. It seemed to me that I recalled one of the witnesses saying that 1 percent of the hazardous wastes was produced by small generators as currently defined and the other 99 percent was produced by large generators.

Am I wrong in that?

Mr. **Lennett**. The numbers vary. It could be as high as 5 to 7 percent of the hazardous waste generation is produced by smaller generators.

Senator **Chafee**. That is of the total hazardous wastes produced?

Mr. **Lennett**. Right.

Senator **Chafee**. Five percent is by small generators?

Mr. **Lennett**. Right.

Senator **Chafee**. Mr. Spivack, how about your folks?

Are they primarily small generators?

Mr. **Spivack**. In our industry, the epoxy resin formulater division, I would say about 80 percent are small generators just as a guess.

Senator **Chafee**. A guess. Certainly, Mr. Contney, your people are small generators.

Mr. **Contney**. I would say 100 percent of our people are small generators.

Senator **Chafee**. Now my question to you both is, How do your people dispose of their quantities? What do they do?

Mr. Spivack?

Mr. **Spivack**. I think that our problem—and I can only speak subjectively from what I do—I think our problem is very similar to this gentleman's problem in the sense that most of our material is contained in solvents which we use to clean our tanks. We have resin tanks. This solvent is given to a solvent reclaimer, because we are not allowed to treat on facility, and he has tail ends which he has to ship to Alabama.

If I remember our manifest properly, you have to be responsible for the ultimate destination of your hazardous wastes. I believe it states Alabama.

Senator **Chafee**. But that would be just for large quantities.

Mr. **Spivack**. No.

Senator **Chafee**. But you are a small quantity——

Mr. **Spivack**. We have to wait until we accumulate enough solvent that is loaded with wastes that the processor will come and pick it up. This was the original problem; as a small generator, we applied for a hazardous waste storage facility, because we wanted to accumulate enough material. We didn't accumulate the proper amount, in the required timeframe to make it economically feasible for these people to come and pick up one or two drums with batch tails in them.

Senator CHAFEE. I see. What about your people, Mr. Contney?

Mr. CONTNEY. Most of our residue is large volumes, either in drycleaning filters or in large quantities of filter powder, diatomaceous earth, for example, that contain a very small percentage of actual drycleaning fluid. That is generally handled by waste transporters in regular landfills.

Senator CHAFEE. It just goes into the regular dump?

Mr. CONTNEY. That is right.

Mr. MULLEN. Senator Chafee, could I address that point?

Senator CHAFEE. Yes.

Mr. MULLEN. We represent the other side of the picture. We are the people, NSWMA, who pick up that waste and dispose of it. We are concerned about the safety of our haulers and the pickup, and also the liability that is forced on us by the uncontrolled disposal of that kind of waste, in our landfills, without our knowledge.

We have the responsibility to protect the ground water even though it is a sanitary landfill, and when we get quantities of hazardous waste unknowingly, we cannot control it. That is our concern.

We believe that most of the small generators produce few types—one or two types of hazardous wastes, and the identification of that is not a great problem, and that the notification system in the proposed bill is a very sound procedure. We endorse that.

That gives us the opportunity of identifying that those are wastes that have to be handled separately.

Senator CHAFEE. All right. That completes my questioning.

Senator Mitchell?

Senator MITCHELL. Thank you, Mr. Chairman.

Mr. Lennett, were you here yesterday during the committee's hearing?

Mr. LENNETT. Yes.

Senator MITCHELL. As you will recall, then, I discussed with Mr. Thomas of the EPA the failure of the EPA to implement the 1977 United Nations resolution regarding the export of potentially harmful chemicals.

I wanted to ask you to comment on that. Specifically, do you believe that the act should be amended to require consent of the receiving country prior to shipment of the waste?

Mr. LENNETT. Yes, we do. In the back part of my testimony, I refer to an incident that happened in Mexico where waste was shipped without Mexico's knowledge, and the EPA was not authorized to stop the shipment. The waste wound up in an abandoned mine storage site in Mexico. One of the people involved was ultimately indicted and put in jail by Mexico. The son of that person is now under indictment in the State of Texas. We don't make friends allowing unauthorized shipments of hazardous wastes into other countries.

Senator MITCHELL. Does any other member of the panel care to comment? Do you support or oppose the suggestion that the law be amended to require the consent of the receiving country before shipment of such wastes can be made outside of this country?

Mr. MULLEN. Well, hazardous wastes treatment and disposal is our business, and we support that requirement.

Senator MITCHELL. The others have no comment, so I will take it that they have no position on it one way or the other.

I would like to ask you, Mr. Lennett, about another aspect of your testimony here and that I also discussed yesterday with Miss Dinkins of the Department of Justice, and that involved the participation by citizens in litigation under this act.

In two respects, she and I disagreed: The first is her opposition to my support for a statutory right of intervention by citizens in a suit brought under section 7003; and, secondly, citizen suits under such subjects.

I note from your testimony that you support them.

Could you briefly, please, summarize your reasons for such support?

Mr. LENNETT. Well, the reasons are different depending on the issue.

Let's first discuss citizens seeking the right to initiate the action. It has been our experience that there exists a variety of reasons why the Federal Government has been unable to act in this area. We have, in our testimony, outlined reports we obtained through Congressman Mike Synar's office, which I think are candid descriptions of the resource availability at EPA at the regional level to do enforcement work, and they show that there is no resource availability at the regional level to do enforcement work and that the States are not adequately staffed to do the job, either.

If that is true, then who is going to file these imminent hazard cases, and why should people be robbed of a Federal avenue to obtain relief when sites are, by definition, causing a substantial endangerment? We think that makes no sense. Ms. Dinkins said there were opportunities under State nuisance law. I think that is true in a theoretical sense. Someone will be testifying today who has much more experience in filing under State nuisance law than I, but I will tell you, we get calls from citizens who can't afford to hire attorneys, and under State nuisance law, the attorney's fees and expenses provisions under 7002 would not apply.

Therefore, when citizens sue for injunctive relief to obtain cleanup, there can be no contingency fee arrangement with the lawyer because the lawyer needs his money up front. So I think the theoretical availability to file one of these nuisance lawsuits is not very meaningful.

The intervention issue, it seems to me, involves a basic right. When there is a government action that potentially affects you, either your health or your welfare or your property, you have a right to be part of that process, particularly in terms of deciding what the cleanup remedy at that site should be. Often when the Government files 7,003 cases, the court will be asked to approve a consent decree that will include the type of cleanup action that will take place at the site.

By giving citizens the right to go in there and present their own witnesses and cross examine other witnesses who are in favor of that decree, Congress is providing people with a basic right to affect their lives; a right to have a say about how their lives are going to be affected, and what their communities are going to look like for the next 20 years. I think it is pretty basic. I don't believe the Justice Department is taking the position it is.

Senator **Mitchell**. Is any member of the panel expressing their support or opposition to the positions Mr. Lennett has just addressed himself to?

[No response.]

Senator **Mitchell**. Thank you.

I have just one more question, Mr. Chairman.

Much of the discussion here has been over the small generator problem. Although I was not here during your testimony, Mr. Lennett, I have read through part of your written statement, and in it you discuss a compromise that was reached after meetings with persons interested in this. Did you discuss this in your oral testimony?

Mr. **Lennett**. No, I did not.

Senator **Mitchell**. Would you, as briefly as you can, summarize it, and then, since the others are all interested in this subject, I would ask them to comment on it.

Mr. **Lennett**. Well, we fashioned a provision which had the following requirements: That within 18 months, EPA would be required to promulgate regulations covering generators down to 100 kilograms per month, that the regulations would provide for a mandatory 180-day storage period, and that the regulations would require manifesting and disposition at a hazardous wastes facility for those wastes. The other regulations could vary as may be necessary to protect human health and the environment so that the paperwork and the other compliance activities could be tailored to the small generator community.

Second, a notification requirement so that the facilities and the transporters, who are receiving the waste, would know that this is hazardous waste. This requirement would become effective 180 days after enactment, and it would apply to the same class of generators, those generators generating more than 100 kilograms a month, which is, by the way, consistent with what Lee Thomas said the agency was considering yesterday.

Third, in the event the EPA does not issue regulations on time, an automatic statutory imposition of a requirement that the exemption go down to 100 kilograms a month 30 months after enactment if the regulations aren't issued, coupled with manifesting and disposition of waste at subtitle C facilities, and extremely limited recordkeeping and reporting requirements.

Senator **Mitchell**. Mr. Gerard, do you support or oppose that provision?

Mr. **Gerard**. We support it, Senator, and the only thing I would add to what he said is that if there is a provision in there that would require the EPA to endeavor to educate the small quantity generator community as to what their obligations would be during that 30-month period.

Senator **Mitchell**. Thank you.

Mr. Mullen?

Mr. **Mullen**. We would support all of what Mr. Lennett has said except the 100 kilograms. We believe that 100 kilograms per month require notification also, 100 kilograms and below. We believe that any hazardous waste requires notification, and we can't accept that portion of his recommendation.

Senator **Mitchell**. You would go further?

Mr. MULLEN. We would go further, as the Senate bill does. It puts no limit on it, and we endorse the bill as it is.

Senator MITCHELL. Mr. Spivack?

Mr. SPIVACK. In general, the plastics industry would agree with the compromise. But we believe there should be some flexibility put in the regulation so that EPA would have the ability to allow for such things as the unique treatment capabilities that the plastics industry has in rendering materials nonhazardous before they are disposed of.

Mr. LENNETT. Senator, can I respond to his problem for a second?

Senator MITCHELL. Go ahead.

Mr. LENNETT. There is a mechanism in the regulations by which his particular problem can be dealt with. If it is really true that when he adds his two batches together the product is a nonhazardous waste, he can file a delisting petition in which he demonstrates just that, and he can then obtain a conditional delisting from EPA that if he puts the two batches together, it is not a hazardous waste when it comes out as a product. I don't see why you need a statutory amendment to take care of that particular problem.

Mr. SPIVACK. You are dealing with a subject I wished to address before. I think, Senator Chafee, you were out of the room when I gave my testimony. We spent about 300 man-hours of a Ph. D.'s time trying to do paperwork and prepare a manual to qualify as a storage facility so we could obviate this problem. We found that we just couldn't do it. There were just too many requirements in the law for a small company to spend its time devoting itself to this paperwork to comply with all the regulatory requirements.

I think here again, we see another instance of it. I think this has to be tempered with a little judgment.

Basically, I may have given the wrong impression before, but I was arguing for a degree of temperance and judgment in our regulations rather than going overboard.

Senator MITCHELL. What would take all the time to get the attempt at delisting?

Mr. SPIVACK. We deal with many products in plastics, and some of them must be changed or developed within 1 or 2 weeks, sometimes, for specific applications. That means that, according to the regulatory process, we would have to get a delisting every time we come up with a new variant of a product that consists merely of mixed ingredients, almost like a bakery, in a sense, or cooking. But the definitions in the regulations cover that pretty thoroughly.

Senator MITCHELL. Thank you.

Mr. Contney, do you have any comment on the compromise suggested by Mr. Lennett?

Mr. CONTNEY. Oh, yes, very much so. We oppose it. We oppose it on the basis that we don't know at what levels a hazardous waste becomes a problem. We, for example, we support the small generator provision in S. 757 as it is written, because these, we understand, were agreed to by all small generators in the so-called small generator coalition including our own group.

The compromise does not represent all the small generators, and so we would definitely oppose that. Our major problem is that in our particular industry, it depends on what you call a hazardous waste. We filter dry cleaning solvents, and therefore, we have got a lot of sludge, and the sludge is a solid waste. Yet within that solid waste we have very small amounts of actual dry cleaning fluid.

We could; the question is, what is going to be the weight requirements and how is it going to be measured? One hundred kilograms, we think, is just somewhat of a capricious kind of a number. We don't think it really has the scientific support. We agree with S. 757 to find out what the scientific community will say about hazardous wastes and about the literally hundreds of so-called wastes.

Maybe 5 is too much for some, maybe 500 is OK for others.

Senator **Mitchell**. OK. Thank you very much, gentlemen. We could pursue this in much more detail, but we do have more witnesses who are here and waiting. Thank you.

Senator **Chafee**. Thank you, Senator Mitchell.

Thank you very much, gentlemen, for coming. We appreciate it.

The next panel would consist of Robert Kuykendall, Barbara Brandon, and Richard Fahey.

If you would take your positions with Ms. Brandon in the middle and Mr. Fahey on the right as you face us and Mr. Kuykendall on the left as you face me.

Mr. Fahey, do you have any copies of your testimony?

Mr. **Fahey**. Yes.

Senator **Chafee**. Why don't you give them to the clerk?

Mr. Kuykendall, is he here?

Mr. **Kuykendall**. Yes.

Senator **Chafee**. Why don't you start off, Mr. Kuykendall? Again, be conscious of the length of your statements. Why don't you proceed?

STATEMENT OF ROBERT G. KUYKENDALL, MANAGER, DIVISION OF LAND POLLUTION CONTROL, ILLINOIS ENVIRONMENTAL PROTECTION AGENCY

Mr. **Kuykendall**. Good morning, Mr. Chairman and members of the subcommittee. I am Robert Kuykendall, chairman of the Federal/State relations task force of the Association of State and Territorial Solid Waste Management Officials. I appreciate the opportunity to testify for the association on amendments to RCRA this morning. The association represents 56 State and territorial solid waste management agencies.

I am also the manager of the land pollution control division for the Illinois Environmental Protection Agency and was with EPA, region 9, in San Francisco.

In March of this year, the association conducted a poll of its membership to determine recommendations for amending RCRA by State officials who are responsible for the implementation of this comprehensive law. To develop an association position, we established a Resource Conversation and Recovery Act Task Force to propose positions to our membership at large. This task force developed a questionnaire which I would like to submit for the subcommittee's record. From the results of the survey, ASTSWMO composed a position paper which I have also included with my testimony based on a consensus of the State officials responding to that questionnaire.

In general, ASTSWMO supports the strengthening amendments included in Senate bill 757. However, our survey revealed that State officials also support additional amendments to RCRA. Moreover, State officials expressed interest in clarifying congressional intent with report language as to the State/Federal role once States become authorized as the primary regulator of this Nation's solid wastes. I would like to review briefly ASTSWMO's recommendations.

The association supports the National Governors Association's position that the States must have the lead responsibility for actual development and implementation of waste control programs. NGA further recommends and we strongly concur that the act should provide that delegation will be approved for State programs which are equivalent in overall effect to the Federal program, without the necessity to show point-by-point equivalence. The interpretation by USEPA of section 3006 of RCRA has proved to be a consistent sticking point for State authorization.

Throughout subtitle C of the act, State involvement in development and implementation of the hazardous waste program is indicated. The experience of State programs, as well as the insight inherent in State perspectives, are vital factors in the successful implementation of the hazardous waste programs. Section 3006 provides the means for assuring that these factors are directly and expeditiously employed through State program administration. ASTSWMO supports the administration of section 3006 so as to encourage each State to assume or to continue primary responsibility for program administration and to recognize and accommodate the various means by which States may choose to conduct their programs.

As you know, certain States have been conducting hazardous waste permitting programs for some time and that those programs have evolved over the years into more sophisticated programs in response to issues and problems raised by practical administration of these programs. State officials recommend that this realm of experience be brought to bear in the hazardous waste program under subtitle C of RCRA, rather than removed from its consideration.

State program requirements and procedures which achieve the same result intended by the requirements of subtitle C should be deemed "equivalent." A level of analysis by the Administrator beyond merely requiring absolute identicality of provisions is evidenced in section 3006(A)——

Senator CHAFEE. Mr. Kuykendall, you have a long statement and not much time, so you better do the best you can to summarize or get right into your specifics.

Mr. KUYKENDALL. I will try, Senator.

Thank you.

In my testimony, I point out two examples for two States in two different EPA regions. Since 1976, State experiences with the delegation process have spanned a wide spectrum involving both good communications with USEPA regional offices and headquarters and quite arbitrary treatment by States by the Agency. The act, when passed, provided legislative language on the process for delegation of the program to the States; the association requests your subcommittee to clarify the equivalency language as Congress intended it. ASTSWMO believes that a definitional problem exists in regard to how EPA is currently interpreting the equivalency of State programs. EPA program delegations should focus on equivalent performance by States rather than identical program form.

An additional item of interest to the States is the need for a reemphasis on the proper management of the total solid waste stream, not just the hazardous waste. In 1976 State solid waste management officials joined with Congress to applaud the enactment of the Resource Conservation and Recovery Act. At last, national recognition of a very serious and growing solid and hazardous waste problem would enable State solid waste management agencies to begin a long overdue corrective and preventative program. Yet in 1981 funding was deleted for subtitle D activities.

One component of the subtitle D program which we wish to bring to your attention was a national inventory of open dumps. This was the first use of a national standard to determine the status of nonhazardous waste land disposal sites. Sites that met the national minimum standard were to be classified as sanitary landfills. Those that failed were to be classified as open dumps and closed or placed on a schedule for upgrading. Funds were removed from the Federal budget for this purpose in fiscal year 1981.

The open dump Inventory remains far from complete. In fact, only 23 States have completed the inventory. Twenty-four have not, and of these, 21 will not be able to complete the inventory because of budgetary constraints. These States have reverted to a reactive program of immediate problem solving rather than a proactive program of comprehensive waste management and prevention. Please remember that 65 of the original 115 interim priority Superfund sites were, in fact, solid waste landfills.

ASTSWMO supports a reauthorization of at least $10 million for subtitle D activites so that the breadth of the original legislation can be retained and implemented.

The fourth concern and certainly one of direct interest to the subcommittee is the association's position on various portions of S. 757. The first deals with small quantity generator exemptions. Since the promulgation of the initial RCRA regulation in 1980, many of the States with previous experience in hazardous waste regulation have continued to express concern that the current 1,000 kilograms exemption is too great. Consequently, the association recommends and strongly endorses S. 757 provisions to lower the small quantity exemption for hazardous waste generators from 1,000 kilograms a month to 100 kilograms a month; additionally, to adopt unique regulations governing this new class of generator, and to extend storage of hazardous wastes up to 180 days without a permit.

However, in conjunction with this 180 day storage exemption, we recommend that any storage greater than 20,000 kilograms be required to obtain a RCRA permit.

Other recommendations of the association concerning this issue include: All shipments of hazardous wastes from generators producing above the 100 kilogram per month limit should be required to be delivered to an approved hazardous waste facility and not to a sanitary landfill meeting the requirements of section 4004(A). Consequently those shipments should be required to use the current RCRA manifest system to insure their delivery to such sites.

Second, measures concerning land disposal limitations, the association welcomes S. 757 provisions regarding land disposal limitations. Several States such as California, New York, Texas, and Illinois have, in varying degrees, been pursuing the prohibition of specified hazardous wastes from land disposal for some time. USEPA needs to assume its proper role and bring consistency through a national approach to this issue.

However, any land disposal limitations should be linked to alternative treatment, reclamation or disposal methods that are "reasonably available" rather than "technologically feasible," as the current bill provides. Reasonably available presumes prior consideration of private sector economics as well as test laboratory conclusions. In the real world, the wastes have got to go somewhere.

The association is also in agreement with the bill's current provisions that the expansion of landfills or surface impoundments which are under iterim status should be subject to the liner and leachate collection system requirements of new facilities. Of course, those States that have received RCRA permitting authority should have the full responsibility for the implementation of any facility expansion regulations or activity.

Mandatory inspections. S. 757 provides for the establishment of a schedule of mandatory inspections (no less often than every 2 years) for every hazardous waste facility for which a RCRA permit is required. The association agrees with this concept but we would strongly object to supplementing State inspections by the public funding of private sector inspections as suggested in the bill. Private inspections are neither appropriate nor necessary to carry out the mandate of this public law. Provided a stable source of funding is guaranteed, the States would eagerly perform any additional inspections through "in place" surveillance system which are staffed by dedicated and qualified people.

On the burning and blending of hazardous wastes, the association agrees that the burning and blending of hazardous wastes needs to be addressed and it is in agreement with the provisions of S. 757 concerning this matter. It is an issue which some States have already begun addressing but which is in need of national direction and program implementation. We support the requirement to report the blending, burning and marketing activities; the development of regulations controlling such activities as quickly as possible, and the labeling of such fuels as containing hazardous wastes.

You have my statement that States should be continued to require and the summary of information should be provided to EPA on an annual basis so that the report to Congress as well as data management systems evaluating the existing regulations or promulgations of new ones.

With respect to delisting, the delisting of hazardous wastes by USEPA should occur only when concurrence has been received from the State. Because the States have the ability to be stricter than the Federal program, this recommendation would prevent both the formation of separate Federal and State hazardous waste lists and confusion among the regulated community.

I want to thank you on behalf of the association for the opportunity to testify here this morning. I would be prepared to respond to your questions. Thank you.

Senator CHAFEE. Fine. Thank you, Mr. Kuykendall.

STATEMENT OF BARBARA H. BRANDON, ASSISTANT COUNSEL, PENNSYLVANIA DEPARTMENT OF ENVIRONMENTAL RESOURCES

Ms. BRANDON. My name is Barbara Brandon. I am here on behalf of the National Association of Attorneys General. I am the litigation director for the Pennsylvania Department of Environmental Resources.

The National Association of Attorneys General urges the committee and Congress to approve two revisions to RCRA, both of which will improve the law enforcement tools available to the States.

First RCRA should be amended to preserve the Federal common law of nuisance. In light of the U.S. Supreme Court's decision to restore the Clean Water Act in the *City of Milwaukee* v. *Illinois II*, RCRA's savings clause should be amended to avoid a similar interpretation of section 7002(f). Thus, Congress should expressly declare that such a right of action exists despite the comprehensive nature of the regulatory scheme under RCRA. Therefore, section 7002(f) should be amended to substitute the word act for the word section and to say State or Federal common law instead of simply common law.

Second, section 7003 of RCRA should be amended to authorize States to sue under its provisions. This section currently authorizes EPA to bring suit to enjoin activities creating an imminent hazard to the health or to the environment. The section should be revised to allow States to bring similar such lawsuits into the Federal forum. This issue is discussed in part 2 of the statement.

Milwaukee II appears to have removed the Federal courts from their role of defining the relationship between the Federal environmental statutes and the Federal common law.

Senator CHAFEE. I will tell you, Ms. Brandon. We have spent a lot of time on Milwaukee II and Milwaukee in connection with this. We have your statement. I know Senator Mitchell is very interested in this, as is Senator Stafford. I personally would prefer if we, rather than spending too much time on that now—do you want to hear her statement in full?

Senator MITCHELL. No. I have a couple of questions to ask.

Senator CHAFEE. OK. Why don't you go on. I guess your whole statement deals with the right to sue for nuisance and——

Ms. BRANDON. There is one aspect of it that I would like to raise in terms of a peculiar position that the States find themselves in. Because we cannot bring suits as States under the diversity jurisdictional purposes, we are relegated without a Federal forum as a State to pursue a nuisance action against an out of State polluter that is, in fact, in the State itself, so that we are left without a Federal forum. If Milwaukee II is extended, a similar result occurs under RCRA. That is one feature that I did clearly want to bring to the attention of the panel in terms of the quirks of Milwaukee II if it is extended into RCRA.

Senator Chafee. I see.

Ms. Brandon. Second, the National Association of Attorneys General believes that the 7003 jurisdiction should be expanded to authorize both the States and the United States to pursue such actions in Federal court. I don't think this will be a common recourse in the States because, for instance, the Commonwealth has sufficient injunctive authority under its recently amended solid waste act and would, in practically all cases, pursue a remedy against the site in State court. However, there could be circumstances where we would wish to intervene in a particular action brought under 7003 by the United States.

Similarly, NAAG takes the position and would endorse the amendment positions and statement of Mr. Lennett on the position of amendments in 7002 of the act in terms of the citizens provisions of the act.

Senator Chafee. I see. Thank you very much.

I don't want to cut you off. If there is anything else you want to particularly stress, now is the time.

Ms. Brandon. No. If questions are going to be asked and you prefer me not to elaborate on them, on the reasons why NAAG believes that it is important to incorporate a Federal common law of nuisance in to address the interstitial nature of the problems that can arise because RCRA has not been fully implemented at the Federal level and because there will inevitably be gaps until RCRA is fully implemented, then it is important to reserve that remedy for the few cases where States and citizens would wish to pursue such remedies in the Federal forum.

Senator Chafee. All right, thank you.

Mr. Fahey.

STATEMENT OF RICHARD P. FAHEY, ATTORNEY, COLUMBUS, OHIO

Mr. Fahey. Thank you, Mr. Chairman.

My name is Richard P. Fahey. I am an attorney from Columbus, Ohio. For the past 7 years in my private practice I have had occasion to represent local governments, citizen groups and business in matters involving the environment, and more particularly in problems of hazardous wastes. Prior to entering private practice in 1976, I served as an assistant attorney general for the State of Ohio handling litigation of environmental and natural resources issues.

It has also been my pleasure for the past 7 years to serve as a professor of law at Capital University Law School where I teach courses in environmental law and natural resources law.

I appear here today on my own behalf.

I am tempted to say I appear here today as a concerned environmentalist, however, I am not sure that would be an entirely true representation on my part. Having represented government, business, as well as citizens' groups, I am afraid I cannot come up with a handy label for the perspective I attempt to bring to these committee hearings.

What I am sure of is that since the enactment of the Resource Conservation and Recovery Act of 1976, I have been involved in attempting to fathom the impact of that law on the private citizens, local governments and business in Ohio.

My perspective, then, is from the problematic receiving end of the policy decisions that this honorable body makes.

From that perspective, I wish to address the changes under consideration by you to the Resource Conservation and Recovery Act citizen suit provisions; more particularly, those proposed provisions which seek to confirm or expand rights of persons including within that definition State and local governments as well as private citizens to seek judicial relief when they believe significant harm is or may be caused by the handling, treating, storing and disposing of hazardous waste.

I would like to share with you an incident in Ohio, which serves to illustrate the need for enacting the changes under consideration to the citizen suit provision. In the fall of 1978, I was contacted by a group of several hundred residents of the small community of Deerfield, located in northeast Ohio.

In late 1972, a one-man corporation known as Summit National Disposal Services purchased an 11-acre site in Deerfield and began to operate on the site as a liquid waste incenerator. Early operations were on a relatively small scale, and not much attention was paid to the facility by residents or governmental authorities.

In the midseventies, as more attention was being directed to the Nation's hazardous waste disposal problems, a market was developed for this company's services. At about the time of enactment of the Resource Conservation and Recovery Act, many manufacturers in Ohio, Pennsylvania, and Michigan began looking for offsite facilities to dispose of their hazardous waste. Summit then began to accumulate waste material on the site.

During this time, an inspector for the State division of surface mining observed the accumulation of wastes, and believing there was a violation of the State's open dump laws, notified the State environmental protection agency. However, no action was undertaken with regard to the site. At that time, Ohio had no hazardous waste laws, only an open dumping law which provided for a maximum penalty of $100 for every day of violation—a minor misdemeanor.

I might point out this site was listed and was permitted as an air pollution site which created problems under the old dumping provisions.

As the activity at the site increased, residents became more and more alarmed by what they saw and began to fear for their health and safety. Attempts by the residents to get public officials to take action to halt activities at the site were to no avail. All the time more hazardous wastes were being placed on the site.

When the residents' group contacted me, we proceeded to file what in Ohio is known as a verified complaint. Ohio has no citizen suit provision of any kind, rather, a verified complaint is filed with the State director of environmental protection, and he investigates the allegations and takes such action as he deems appropriate.

In 1979, the site was ordered closed. The one-man corporation went bankrupt, but not before transferring the land to another individual.

During the period of its operation, the firm received approximately 35,000 drums and 4,500 gallons of waste, including waste oils—I won't bore you with it. It is a pretty bad site.

Additionally, and, again, I won't bore you with it. It costs approximately $4.5 million to attempt to correct this site.

What are the lessons to be learned from Deerfield? During the period when most of the hazardous wastes were placed on the site RCRA was enacted, but there were no regulations until May of 1980. Consequently, the citizen suit provision was virtually useless in this situation. The option of bringing an action against the Administrator to issue a permit, standard, regulation, condition, requirement, or order was ludicrous.

What was necessary was a means whereby persons could enlist the powers of the judiciary to halt the accumulation of hazardous wastes which were clearly presenting an imminent and substantial endangerment to human health and the environment.

Instead, these citizens, representing a cross section of mid-America's middle Americans, were reduced to engaging in picketing of the facility owner's residence and a series of confrontations with their public officials. All the while, hazardous waste continued to be accumulated at the site.

Who loses in this type of a situation? We all do. The private citizens are exposed to chemical wastes which endangers their health and property. Without an efficient and effective means of redress, people are left to their own devices to effect a resolution of their grievances. Industry and the Government are made to pay the high monetary costs associated with trying to undo the harm wrought.

Of course, since the Deerfield episode in the late seventies, the USEPA has undertaken to regulate the hazardous wastes from cradle to grave as it was mandated to do by the enactment of RCRA in 1976. Nevertheless, the proposed changes to the citizen suit provision are as necessary today as they were in 1979 for essentially the same reasons.

I have, up until this point, intentionally avoided speculating about what the factors were which lead the State and Federal officials to inaction in the Deerfield episode. I do not believe it was any malicious or intentional behavior that lead to this situation.

Deerfield was not the only environmental problem confronting Environmental Protection Agency officials in the State of Ohio at that time. What was perceived as a disaster by the local residents is but one of many problems requiring an allocation of precious enforcement resources.

There is, quite simply, not enough in the way of public enforcement resources available, nor is it realistic to assume there ever will be. Officials must prioritize their enforcement targets, and being human, sometimes there will be mistakes. In instances where imminent and substantial damages to health or environment exist, citizen suits should be authorized.

There is also the very real possibility that officials charged with enforcing the hazardous waste laws may choose to ignore violations, or proceed to take enforcement action in a less than timely manner. Again, citizen suits should be authorized in such instances.

Too often we forget that as elaborate as the regulatory system might be to track the cradle-to-grave course of hazardous wastes, participants must voluntarily place themselves in the system.

The proposed changes to the citizen suit provision would by making direct level recource available to all persons have a deterrent effect. Quite simply, the chances of getting caught violating the hazardous waste laws would be increased.

The response one expects to hear to these arguments is that such changes to the citizen suit provision will result in a flood gate of litigation. Several practical considerations mitigate against such a result. First, the type of litigation we are discussing is extremely costly for all parties, not just the potential violator.

Second, the courts, with their rules of procedure, possess a number of mechanisms which allow for the early disposition of frivolous lawsuits.

Third, the courts, in exercising their authority over the awarding an attorney's fees, provide a strong economic disincentive to the commencement of frivolous actions.

What the proposed changes in the citizen suit provision do provide is a check on the Administrator's enforcement program and assure that the policy of this legislative body is carried out.

To those in the regulated community, there is further assurance that by their voluntary compliance with RCRA's requirements they are not being placed at a competitive disadvantage because of lax enforcement procedures.

Citizens can rest assured that a timely and viable means to redress their grievances through the judicial system is provided them. Such developments can only strengthen the effectiveness of the hazardous waste program and facilitate the trust and confidence of the general citizenry in their government's concern for their health and the protection of the environment.

Thank you.

Senator CHAFEE. Thank you, Mr. Fahey.

I think that is one of the best statements we have heard in a long time here. That was excellent, and I think you made a very good point.

There is not much else I can say to it. I remember when, in our State, sometime ago before it was a popular thing to do, we had laws protecting our marshlands. We provided a provision that anybody who spotted somebody dumping in the marshlands—they are saltwater marshes—would receive a part of the judgment that was obtained against the dumper. It provided, what I suppose you would call a squeal rule, but nonetheless, it was very effective. Somehow, I think there is a point to be made in here about the Dearfield, Ohio case. It isn't that the Government is intentional; it sometimes is just so overburdened with its responsibilities and challenges; it just cannot respond.

I think you made a darn good case for the citizens suits, so I appreciate what you have done on that.

You had the same point, Mr. Kuykendall, didn't you, in your statement? I know that you wanted the States to have the right.

What about the citizens? Did you touch on that?

Mr. KUYKENDALL. No, I did not. I think that the association could support that; the State of Illinois, I think, could support that.

Senator **Chafee**. You did, Ms. Brandon, in your last point, didn't you?

Ms. **Brandon**. Yes, I did.

Senator **Mitchell**. You just said States.

Would you include citizens?

Senator **Chafee**. Didn't you have citizens as your last point?

Ms. **Brandon**. For the 7002 provisions, yes, and with respect to the eminent and substantial endangerment authority, I think it is quite appropriate to allow citizens to intervene in any actions that are brought by a governmental agency under that section in terms of participating and what type of remedy that is being drafted that effects directly the citizens who live around the waste facility in question.

Senator **Chafee**. Mr. Kuykendall, could you just touch on that point that we have been talking about here; about the siting provisions and the availability or nonavailability of adequate sites and somehow encouraging that the States or States in conjunction with others can proceed to have more sites?

Do you have any thoughts on that?

Mr. **Kuykendall**. I will have to put my Illinois hat on at this point. Since January of 1982, the State of Illinois has had siting—we have had a long history of siting approaches and the like from State preemption now to where it proceeds under what is known as the Senate bill 172 process, where a local regional government, a county, or a municipality, has the prior approval authority to site or to consider to siting of what is known as a regional control facility.

This can include landfills, hazardous waste facilities, storage, treatment.

Senator **Chafee**. That is a State law?

Mr. **Kuykendall**. That is a State law, and it has been in effect since January of 1982. When a company comes forward to the county for an application to site, expand or modify the facility, the county board or the regional body of government has six requirements which they have to consider. The State agency cannot touch that permit or take any action until we get that certification of local siting approval, and there are in excess of 50 siting decisions.

Most of them have been for the expansion or modification of sanitary landfills and not hazardous wastes, and, basically, the Illinois case law is being developed in terms of decisions are being made; some are appealed; some go before the pollution control board.

The position of the EPA in the State is that local siting is working; facilities are being sited, particularly sanitary landfills. There is case law being developed. We have not seen hazardous waste sites being sited and developed, and the prospects of that, in terms of a major new planned disposal facility, a major new treatment type of facility, they can have strong local opposition to the successful siting activities.

In April, I attended a hazardous waste siting conference in Chicago. The EPA sponsored it, and it was attended by various other States. I came away from that conference thinking, "Things aren't so bad in Illinois."

Senator CHAFEE. If I understood what you said, they are proceeding with solid waste landfills, and there is local pressure on them to have one, because the people have to have some place to dump their garbage.

Mr. KUYKENDALL. But on the hazardous waste side, the success has not been there.

Senator CHAFEE. But on the hazardous waste, the success has not been there.

Mr. KUYKENDALL. No, we have had any number of proposals that have failed. Since the land disposal law went into effect in January, we have had seven sites for permanent waste disposal facilities. We are now down to five, and the closure of one major one looks iminent in the next month or so.

I think I want to bring to the committee consideration a major dilemma that EPA has and the commerce and the State administrators had whereas we are exhuming to make decisions on the cleanup of Superfund sites. The problem I have is are we going to use the presently available hazardous waste disposal facilities for the placement of material from Superfund sites or are we going to take care of it at Superfund site facilties?

Senator CHAFEE. I couldn't understand what you said.

Mr. KUYKENDALL. What I am trying to suggest is a major policy predicament we are in "is we are going to use the present capacity of future landfills for present and future generation, or are we going to use that existing capacity to dump the material we exhume to take up from the Superfund site cleanup activities?

Senator CHAFEE. My time is up.

Senator Mitchell?

Senator MITCHELL. Miss Brandon, I didn't understand your answer to the question we asked about the citizen participation. There are two methods of citizen participation: The first is the right to initiate suits directly, to which Mr. Fahey addressed himself; the second is the right to intervene in an action brought by a government agency.

Do you favor both the citizens suit right and the statutory right of intervention in section 7003 cases?

Ms. BRANDON. I would like to explain the problem I have in giving you a full position here. I know what NAAG's position is on this particular matter. I am not sure that it covers, to date, the scope of authorizing full 7003 citizens launching a lawsuit. I know that intervention in that lawsuit and citizen participation in the lawsuit at that level is something NAAG would certainly support.

Senator MITCHELL. So you favor a statutory right of intervention, and you have no position on the question of citizen suits; is that a fair statement?

Ms. BRANDON. No; I think we have support in the 7003 context. I think the issue comes up with respect to the imminent and substantial endangerment action of section 7003 itself.

Senator MITCHELL. So you have no position on citizen suits on 7003?

Ms. BRANDON. No, but a broad degree of support for intervention of citizens into any lawsuit that has been brought by either the United States or a State in that area.

Senator MITCHELL. All right.

Your very first section of your statement is that RCRA should be amended to preserve a Federal common law usage. Yesterday, a representative from the Department of Justice, who, incidentally, opposed citizens suits, the statutory right of intervention and all of the rest of that also opposed what you are now suggesting because she said there is no Federal common law, period.

Ms. **Brandon**. I disagree with that position. I also would point out that it was not the position of the Justice Department during the Nixon administration or the Ford administration, certainly during the Carter administration, when the Justice Department, during those years, brought Federal common law nuisance actions in the United States versus Reserve Mining brought by the Nixon era Department of Justice, and, certainly the Carter administration made extensive use in the RCRA area of the Federal common law of nuisance in terms of filing complaints on Hooker Chemicals, and many others contained Federal common law of nuisance counts which were quite useful in terms of providing a substantive base of law where Federal courts were construing 7003 or various provisions in the Superfund statute as merely being jurisdictional but not providing for a fundamental body of law that the courts look to in terms of implementing it.

I think it is where we have a program that is as comprehensive as RCRA but has not been as fully implemented as it should be that there are inherently going to be gaps, even after we are through the next 3 or 4 years where a particular substance, for instance, dioxin, is not being regulated at the moment where the Federal common law of nuisance could provide a remedy.

Traditionally, Federal judges and State judges have applied the rule of reason and uses as an effective way to balance and provide for a remedy when there is gap between the regulatory program and the fact that there is an environmental problem occurring that is not being addressed.

The number of cases are going to be very few where this occurs, but I think it is very important to preserve it, because governmental agencies at the State and Federal level cannot address all the possible ramifications of a problem.

Senator **Mitchell**. Ms. Dinkins said you have got State common law.

Ms. **Brandon**. State common law of nuisance isn't necessarily going to provide a substantive standard in the Federal statutes, and it doesn't address the problem when you have an interstate impact, and it certainly doesn't address the problem of providing a remedy for either citizens in one State or a State itself to seek redress in another State.

In terms of, I think, the number of cases that occurred from the period of 1970 through the decision in *Milwaukee II* are very limited. We are not talking about overburdening the Federal judiciary here by creating a vast new class of cases, but I do think it is important to preserve the Federal common law in order to allow both States and citizens who have an interstate problem to have a Federal source of law to look to rather than the State if they are suing in the State where the problem is actually occurring.

Senator **Mitchell**. Ms. Brandon, I think your testimony is very persuasive, and I would like to have you, if you would, submit to me a brief memorandum in writing supporting that particular aspect of it, and, specifically, your assertion that the Justice Department, in previous administrations, took a view contrary to the one now taken by the Justice Department. I will tell you what I am going to do with it. I am going to send it down to the Department of Justice and ask Miss Dinkins to justify her statement for the record.

Ms. **Brandon**. I can refer you right now in the record because I brought a Milwaukee versus Illinois opinion for the record, where Assistant Attorney General Morman wrote to Senator Muskie of this committee, and a footnote in Justice Blackmun's dissent in that case quotes extensively from the letter where former Assistant Attorney John Morgan argued for the small interstitial nature of the remedy but the importance of preserving the remedy, and I would also point out if you look to the legislative history discussion in Justice Blackmun's dissent there, you will find references to the fact that the UP versus reserve mining contained a Federal common law of nuisance claim. That was before I was with the Justice Department, but I beleive it was brought during the Nixon administration, if not the Ford administration.

Senator **Mitchell**. Would you let me have that? I will send that to the Justice Department to have them justify their statement yesterday which it appears, from your statement, to be contrary to law and to the Justice Department's previous position.

Thank you, very much, Miss Brandon.

I have no further questions, Mr. Chairman.

Senator **Chafee**. Thank you all very much.

I appreciate your coming.

The final panel will be Rowan Perkins, senior consultant, E. I. du Pont, representing Council of Industrial Boiler Owners; Morton Mullins, manager, Environmental Engineering, Monsanto Co., representing Chemical Manufacturers Association; J. Paul Oxer, P.E., member, water policy task force, representing National Society of Professional Engineers.

Gentlemen, if you would take your seats, Mr. Perkins facing me, Mr. Mullins in the middle, and Mr. Oxer on the right?

Mr. Perkins, why don't you proceed?

STATEMENT OF ROWAN PERKINS, SENIOR CONSULTANT, E. I. du PONT CO.

Mr. **Perkins**. Do you want 5 minutes?

Senator **Chafee**. Yes. You can go a little bit over if you have got something additional, but we would like you to, if you could, summarize.

Mr. **Perkins**. Thank you, Mr. Chairman.

My name is Rowan Perkins. I am a senior consultant in the power group of the engineering department of E. I. du Pont, and I appreciate the opportunity to testify before the subcommittee today on behalf of the Council of Industrial Boiler Owners, CIBO, regarding S. 757 amending the Resource Conservation and Recovery Act.

CIBO is a relatively new organization. It is a broadbased association of industrial boiler owners and related equipment manufacturers representing 16 major industries. CIBO was formed in 1978 to promote the development and adoption of coherent and rational energy and environment policies relating to industrial steam generation.

CIBO's expertise and mission is in the efficient operation and maintenance of industrial boilers which are intended to provide reliable steam supply for industrial processes.

Senator CHAFEE. I believe this is the first representative of the Council of Industrial Boilers to appear before us.

Mr. PERKINS. I believe so.

Senator CHAFEE. So we welcome you.

Mr. PERKINS. It is our pleasure.

I will skip along some of this.

Senator CHAFEE. You are particularly going to be dealing with the blending problem; is that right?

Mr. PERKINS. No, sir. We are going to be dealing with section 7, but section 7 covers two things: For one thing, it requires that EPA address the burning or the exemption for the present burning of hazardous wastes for energy recovery.

In another phase, it also addresses the blending.

Now, we have no argument with the blending. That is a separate thing. We are interested in the effect of that section 7 on industrial boilers burning waste.

We believe that the industrial boilers burning wastes do not produce the kind of potential hazards such as the rest of the provision is directed to. Therefore, we believe that section 7 should be modified to avoid the hasty regulation of industrial boilers which action, we believe, would be in the public interest for several reasons.

As I am sure you know, EPA already has plenty of authority to regulate boilers, and furthermore, they are modifying their present exemption to include applying it to the burning of fuel-like wastes having a heating value at least as great as wood subbituminous coal. CIBO is concerned that enactment of section 7 could be construed as a mandate to impose burdensome regulations over all boilers burning hazardous wastes as fuels without thoughtful consideration to the energy, environmental, and economic consequences of such regulation.

We think there are several points in this regard: No. 1, industrial boilers burning hazardous wastes have not been shown to present environmental problems. As a matter of fact, on the contrary, it is our understanding that recent EPA studies have shown that boilers achieve a very high efficiency in burning fuel-like wastes.

This shouldn't surprise anybody, because boilers are designed to burn hydrocarbons, which is what we are burning in the wastes.

Item 2, the burning of wastes in industrial boilers represents an increasingly important alternative source of energy for the generation of steam. The wastes that are burned are high in heating value. The increase in consumption of waste burning in boilers has been 14 percent between 1972 and 1979.

It represents a replacement of some 57 million barrels of oil per year, which is roughly equivalent to, that is, $1.75 billion.

Item 3, the on-site burning of wastes in industrial boilers is a preferred waste disposal practice. The people that will be burning it know what the hazards are of that material.

And now 4, regulation of industrial boilers could actually produce negative health and environmental consequences. These derive from the increased use of oil and coal, fossil fuels of limited supply, to replace the present heat that you get out of the industrial wastes.

Also, many of the wastes that are burned, most of the wastes that are burned are lower in nitrogen and sulfur than the fossil fuels.

In conclusion, CIBO believes that these considerations, namely, one, the importance of high energy content waste as an alternative fuel; two, the high burning efficiency of existing industrial boilers; three, the public interest in burning wastes as a disposal method; and, four, the lack of evidence that burning of the wastes in boilers represents an environmental health problem—these four items strongly counsel against traditional regulation of industrial boilers burning hazardous wastes. Accordingly, CIBO urges that section 7 be revised to reflect these considerations.

If the subcommitte feels that some additional inquiry regarding the burning of fuel-like wastes in industrial boilers is necessary, CIBO would suggest that Congress expressly require EPA to conduct an investigation and report to Congress assessing: One, the impact of various regulatory options for the use of waste as an alternative energy source; and, two, the risks imposed by current industrial boiler practices and the expected risk reductions of various regulatory options.

CIBO believes that these requirements would promote more responsive and rational policy toward boiler operations by insuring careful consideration and the balancing of competing national environmental economic goals.

Senator **Chafee**. Thank you, very much, Mr. Perkins.

It seems to me that this is a rather esoteric field which I will confess I am not intimately familiar with.

What I would suggest is that you and your folks work closely with our staff on this section 7 problem and see if you cannot resolve it. Maybe we can deal with some differentiation with regard to quantity or a similar matter like that that will separate out the problems you mention as opposed to the problems that we are trying to deal with.

I just assume that in your discussions here you are not talking about burning large quantities of hazardous wastes.

Mr. **Perkins**. The quantities as a percentage of tbe total fuel are very low, yes.

Senator **Chafee**. OK. I suggest that you work with Miss Cooper and with Mr. Cummings and others.

Thank you.

Mr. Mullins?

STATEMENT OF MORTON L. MULLINS, MANAGER, ENVIRONMENTAL ENGINEERING, MONSANTO CO.

Mr. **Mullins**. Thank you, Mr. Chairman.

My name is Morton Mullins, and I am manager of environmental engineering for Monsanto Co., headquartered in St. Louis, Mo.

I am appearing today on behalf of the Chemical Manufacturers Association. We have closely followed debate of RCRA, debate in both houses of Congress, over the last year. The events of the past few months have raised so many questions as to the integrity of the Nation's hazardous waste management program that we certainly join Congress in the conclusion that we all need to act to restore public confidence in this area.

Superfund sites, which, quite understandably, have raised so much concern, were created in an era of little or no regulation of hazardous waste management. The regulations which EPA has already put into place under RCRA go a long way toward minimizing future Superfund sites, and S. 757 will help perfect that regulatory scheme.

We primarily framed our comments to address the Senate bill. In addition, we referred to several references in the House bill in recognition that the two must eventually be reconciled.

First, I would like to speak to section 5 which deals with limitations on land disposal. CMA agrees that there are hazardous wastes for which certain forms of land disposal may not adequately be protective. The authority and direction provided in section 5(a) adequately addresses this need, and we support it, we believe, however, there are two improvements which you should consider:

First, we would suggest adding the words "and commercially available" after the word "feasible" on page 10, line 16.

This modification will allow the administrator up to 2 years to implement a specific prohibition provided suitable alternative capacity is not feasible or available.

While 2 years is, at best, marginally adequate to allow permitting and construction in those cases where the alternative capacity does not exist, such a provision would at least allow time for generators to take steps to avoid or minimize business interruptions.

Senator MITCHELL. Mr. Mullins, in your written statement, you had an additional suggestion regarding "where technology."

Are you just skipping over that to save time, or do you not make that suggestion now?

Mr. MULLINS. Really both, Senator. I skipped over it to save time, but also it occurred to us late in the game that if you added the commercial available, I think economically feasible would be understood and perhaps a change is academic.

Senator MITCHELL. So a need for the suggested wording, "technologically" would not be there if me took the second suggestion?

Mr. MULLINS. That is our belief.

Second, the administrator would have or should have the authority to grant site-specific variances in those unique situations where the continued land disposal is adequately protective.

Examples of such situations would include ones where the geology is unique such as a location where there really is no potable ground water, or where the process differences, such as waste characteristics or treatment of disposal technology, differs such as continued land disposal is equally protective to the alternatives specified.

With the modification of these two provisions, CMA would be totally in support of the language in section 5(a), and that includes "the liquids in landfills" provision.

We also support the concepts contained in section 5(b), which would require interim status expansions of land fills or surface impoundments to install liners and leachate collection systems as would be required for a new unit. The only concern we have in this regard is that an owner or operator complying with this section not be second-guessed when subjected to final permitting. By this, we are referring to specific design details such as how thick is the liner or what is it made of?

We have suggested language in our written statement that will deal with this concern.

We would like to point out that the House bill, as reported out of the committee, contains in its land disposal provision two features which we find quite troublesome and objectionable.

We would just like to mix them briefly.

They are the listing in the statutes of specific categories in concentrations of wastes to be prohibited.

I believe 12 months is an unrealistic time frame given the thousands of wastes and waste disposal combinations that will have to be resolved.

CMA is supporting the balance of S. 757. We have attached some detailed comments dealing with section 6, listing and delisting, which we believe might be helpful in perfecting this language, and we have also attached some comments on several legal and enforcement provisions that appear in the House bill with which we have concern.

Specifically, I am referring to those provisions involving Federal common law, expansion of the applicability of citizens suits and immanent hazard provisions.

Senator MITCHELL. You are against the citizens suit provision, Mr. Mullins?

Mr. MULLINS. We are against that in the expansion that is suggested in the House bill, yes, sir.

Senator MITCHELL. Are you against the statutory right of citizens in cases brought by the Government, as well?

Mr. MULLINS. We believe that adequate provision is provided in the statute as it now exists, certainly to allow public involvement.

Senator MITCHELL. In other words, you are against writing into the law that citizens have a statutory right to intervene?

Mr. MULLINS. The way that it is written in the House bill, yes, sir. I must say that if I tell you a lot more about that, I would be practicing law without a license. I do have an attorney with me, and if you would like to explore that, we can.

Senator MITCHELL. No. That is all right.

Would you just write me a letter on that?

Mr. MULLINS. Yes.

We commend the committee on the bill today in areas needing more emphasis without precipitously addressing the programs currently underway.

As Congress moves forward to reconcile the bill which has been drafted, we urge that the same approach be retained.

Thank you, very much.

Senator CHAFEE. Mr. Oxer?

STATEMENT OF J. PAUL OXER, NATIONAL SOCIETY OF PROFESSIONAL ENGINEERS

Mr. **Oxer**. Thank you, Mr. Chairman.

My name is Paul Oxer. I am a civil engineer from Dallas, Tex. I am registered as a professional engineer in several States. I am in the employ of Ecology and Environment, Inc., Dallas, Tex.

I am the senior investigator on a hazardous waste site field investigation team. I am here today representing the National Society of Professional Engineers of which I am a member.

Now, although we are on the industry panel, I would like to point out that NSPE has 80,000 members engaged in virtually every aspect of engineering within industry, government, education, construction and private practice.

We have many engineers, many members who are involved with all facets of hazardous wastes management from the investigation of sites to the creation of solutions for the problems that hazardous wastes present.

In the interests of time, I am going to summarize most of what we presented in our written statement. Our position is a matter of record. A hazardous waste program needs a certain balance. This must be a balance between on the one hand, moving so slowly that serious threats to human health and the environment persist, and, on the other hand, placing unreasonable demands and timetables on industry and the EPA.

A State program is needed. There needs to be a stable program of reasonable deadlines, strict enforcement of the laws as they are promulgated, and sufficient revenues for the agencies involved, specifically, EPA, to do its job.

Our organization supports Senate bill 757 as a step in the right direction.

I would like to say thank you again for this, our first opportunity, to speak before the subcommittee.

My particular personal expertise is in the civil engineering aspects of this problem. We have other NSPE members, as I spoke of, who have experience in other facets of the hazardous waste problem.

I will address three of the items contained in S. 757. First of all, small quanitity generators.

We applaud the suspension of the numerical cutoff for the small quantity generators' exemption. We consider any numerical cutoff as being arbitrary and not distinctive, because it would not differentiate between materials which are toxic and hazardous in small quantities and those which are not hazardous until you have large quantities in high concentrations.

Second, on land disposal, there is a sufficiently large and still growing body of evidence to support that landfills constructed through state-of-the-art technology, cannot be guaranteed against leakage. This presents, obviously, a danger to our ground water which supports the potable water requirements for a large portion of the United States. Many hazardous wastes are amenable to detoxification, stabilization and recovery, through proven engineering techniques that are available now.

It is unfortunate that some of the materials being landfilled now are being landfilled. Some materials of high toxicity and hazards should simply not be landfilled. We recognize that for others, landfilling is perhaps the only option that is available.

We actively promote the transfer of recycling and detoxification technology and would urge that such a provision be included in Senate bill 757.

At the risk of going beyond the scope of the bill before us today, we urge that Congress provide economic incentives to private industry to encourage installation of facilities for regional waste treatment. Such centers would be for those small generators' wastes which are not treated at the site of generation but instead are accumulated for transport to the center to be segregated and treated, recovered or destroyed.

While we don't advocate the creation of a grants program for this purpose, we believe that tax incentives and revenue bonds should be considered.

Senator CHAFEE. You mean some sort of a tax credit, for example?

Mr. OXER. Perhaps, but certainly some economical incentive to provide for regional recycling, detoxification or treatment.

Third, the current EPA procedure for delisting treated or detoxified materials is an inefficient bureaucratic exercise.

I believe this committee should suggest to Congress that it direct the Agency to develop an efficient process for removing from regulation those substances which can be safely disposed in a nonhazardous site or as a nonhazardous waste. Specific guidelines should be presented clearly identifying how to file the petition, and these petitions should be acted on within 3 months.

Clearly, the Agency's effectiveness is diminished when resources are devoted to regulating wastes which are relatively harmless.

Excessive regulation is also costly to industry, which uses many of its resources, personnel and finances for this purpose.

We urge that the EPA be directed to implement a more efficient delisting procedure and that the Agency be given enough resources to achieve that goal.

In conclusion, thank you, Mr. Chairman, for the opportunity to speak before you. We support the general thrust of Senate bill 757 and ask the subcommittee to consider the additional points we have raised.

Senator CHAFEE. Thank you, Mr. Oxer.

What do you mean by encouraging the transfer of recycling and detoxification technology?

How would you suggest we do that?

Mr. OXER. There needs to be more investigation, more research and development into detoxification technologies; there needs to be more dissemination of that information among small generators, specifically; there needs to be economic incentives for the use of that technology in regional treatment facilities so that it gains a wider public acceptance and that the EPA, in using and promoting those technologies could have credibility.

Senator CHAFEE. Mr. Mullins, what do you say about Mr. Oxer's suggestion that somehow we encourage the installation of onsite treatment facilities?

Are there any constraints on members of your association in proceeding now with onsite treatment facilities?

Mr. MULLINS. Not at all, sir. We are devoting a great deal of research to that effort. I would like to point out that from our perspective, a great many incentives have been established in the recent past that did not exist when Superfund sites were established.

The new standards for permitting of disposal sites are going to increase the cost of the disposal, quite properly, by orders of magnitude above what they have been in the past.

The use of a waste end tax, which is being considered in other legislation other than RCRA, will further provide a direct incentive to production and dependence of land disposal.

I think the incentives are there. I know that many, if not most of our major companies are investing a good bit of research effort not only to detoxification and stabilization, but also waste reduction. I think many incentives are in place and are starting to have their effects.

Senator CHAFEE. The tax would be locally imposed taxes you are talking about?

Mr. MULLINS. No, sir. I am talking about the consideration of shifting Superfund tax, which is now in a very narrow band of chemical raw materials or feed stocks, shifting that tax from the front end, from the raw material, to the waste end, to the actual disposal.

We think that is very appropriate.

Senator CHAFEE. But then we had testimony yesterday that a lot of states are imposing a per ton tax on hazardous wastes that are disposed of.

Mr. MULLINS. Yes, that is also a waste end tax.

Senator CHAFEE. Just to comment, Mr. Mullins, on your suggestion of inserting the words "commercially available" after the word "feasible," the thrust of what we are trying to do in the language we currently have is to just press the development of more sophisticated technology all the time.

That is why we had that other language in there.

Mr. MULLINS. Yes, sir. We think that technology forcing is appropriate, but the way it is written now, we would have a concern that if a technology had anywhere been demonstrated, even though on the laboratory bench, that the Administrator did not have the authority to allow the 2-year extension.

All we are saying is if there is not commercial capacity available, that the Administrator ought to have the authority to give that 2 years to allow generators either to construct alternative technology, seek it out and make necessary arrangements to get their wastes to that alternative technology, or revise their processes or make other business adjustments on the way to not have a disruptive impact.

Senator CHAFEE. Gentlemen, thank you, very much for coming. We appreciate your submission of statements and your testimony here today.

Mr. PERKINS. Mr. Chairman? Could I add one thing on the on-site treatment?

Senator CHAFEE. Yes.

Mr. Perkins. I think we are affected by that also, and we are very much interested in onsite treatment. That is one of the points which I made in the discussion; that if we can burn this waste, we can put it to a useful purpose; if we could reduce the volume of that it would require recycling, and we could dispose of it onsite in a much better manner.

Senator Chafee. Yes, but there is a limitation in the quantities that you could take safely.

Mr. Perkins. Yes, sir. The alternatives, of course, are through incineration to reduce the volume. We want to keep as much of it for a useful purpose that we can, of the organic wastes. We are not going to burn anything that is not burnable. If we can reduce the volume of it, we can reduce the amount of it in the boilers as an energy method rather than going to land fills or incenirators.

Land fills would increase the volume. Incinerators would increase the fuel use, not only as a replacement, but in order to dispose of the organics.

Senator Chafee. OK.

Thank you, very much, gentlemen.

[Whereupon, at 12:40 p.m., the subcommittee recessed, to reconvene at the call of the Chair.]

[Statements submitted for the record follow:]

Testimony of Senator Christopher J. Dodd

MR. CHAIRMAN, I APPRECIATE THIS OPPORTUNITY TO TESTIFY BEFORE THE SUBCOMMITTEE ON THE SOLID WASTE DISPOSAL ACT AS AMENDED BY THE RESOURCE CONSERVATION AND RECOVERY ACT, AND THE NEED FOR REVISIONS IN THIS STATUTE.

I WOULD LIKE TO COMMEND YOU AND THE OTHER MEMBERS OF THE SUBCOMMITTEE FOR YOUR EXCELLENT WORK IN PREPARING PROPOSED AMENDMENTS TO RCRA (S.757) AND FOR FOCUSING PUBLIC ATTENTION ON THIS PRESSING ISSUE.

I THINK IT IS MORE THAN APPARENT TO ALL OF US HERE THAT RCRA IS A LAW SERIOUSLY IN NEED OF REFORM. NEWS ACCOUNTS OF THE DIOXIN-CONTAMINATED SECTIONS OF NEWARK, N.J. AND OF TIMES BEACH, MISSOURI, HIGHLIGHT THAT RCRA IS FAILING TO ACCOMPLISH ITS LEGISLATED PURPOSE OF PROTECTING HUMAN HEALTH AND THE ENVIRONMENT FROM HAZARDOUS WASTES.

CONGRESS'S INTENT WHEN IT PASSED RCRA IN 1976 WAS TO CREATE A STRICT SYSTEM FOR CONTROLLING HAZARDOUS WASTES FROM "THE CRADLE TO THE GRAVE". TODAY, SOME SIX YEARS LATER, THIS SYSTEM IS INCOMPLETE AND RIDDLED WITH LOOPHOLES. IN FACT, AS A HOUSE ENERGY AND COMMERCE COMMITTEE REPORT INDICATED LAST YEAR, AS MUCH HAZARDOUS WASTE ESCAPES PROPER CONTROL TODAY THROUGH LOOPHOLES IN RCRA AS RECEIVES PROPER REGULATORY ATTENTION -- ALMOST 40 MILLION METRIC TONS.

IN FEBRUARY I INTRODUCED LEGISLATION, THE HAZARDOUS WASTE IDENTIFICATION ACT (S. 346) IN AN EFFORT TO IDENTIFY AND TO ELIMINATE SEVERAL OF THE LOOPHOLES IN RCRA WHICH ALLOW HAZARDOUS WASTES TO GO UNREGULATED. MY COLLEAGUES, THE DISTINGUISHED CHAIRMAN OF

THIS SUBCOMMITTEE, MR. CHAFEE, AND THE DISTINGUISHED RANKING MINORITY MEMBER OF THE FULL COMMITTEE,MR. RANDOLPH,JOINED ME IN INTRODUCING THIS BILL AND IN AGREEING THAT THESE LOOPHOLES WERE AMONG THE MANY CRUCIAL ISSUES THAT NEED TO BE ADDRESSED BY THIS SUBCOMMITTEE AND THIS CONGRESS IN REVISING RCRA. I AM PLEASED TO NOTE THAT S. 346 IS CONTAINED IN THE RCRA AMENDMENTS BEFORE YOU.

I WOULD LIKE TO BRING THE SUBCOMMITTEE'S ATTENTION TO SECTIONS OF MY BILL CONTAINED IN THESE AMENDMENTS WHICH FOCUS ON TWO OF RCRA'S MAJOR LOOPHOLES.

THE FIRST LOOPHOLE IS IN THE IDENTIFICATION AND REGULATION OF NEW HAZARDOUS WASTES. IT IS EPA'S RESPONSIBILITY UNDER RCRA TO IDENTIFY, CHARACTERIZE, TEST AND ULTIMATELY LIST ALL WASTES WHICH POSE A THREAT TO HUMAN HEALTH AND THE ENVIRONMENT. UNDER PRESENT

REGULATIONS, A WASTE IS IDENTIFIED AND REGULATED AS HAZARDOUS EITHER IF IT EXHIBITS ONE OF A DEFINED SET OF CHARACTERISTICS OR IS SPECIFICALLY LISTED AS A HAZARDOUS WASTE.

THIS METHOD FOR IDENTIFYING HAZARDOUS WASTES IS SENSIBLE IN THEORY. IN PRACTICE, IT HAS BEEN LESS THAN EFFECTIVE. THIS IS PRIMARILY BECAUSE EPA HAS YET TO UPDATE ITS ORIGINAL LIST OF WASTES TO ACCOMODATE NEW WASTES. IN FACT, EPA HAS NOT LISTED ANY NEW WASTES SINCE 1980. SIMILARLY, EPA HAS NOT REVISED ITS CHARACTERISTIC TESTS FOR IDENTIFYING HAZARDOUS WASTES SINCE THEIR INCEPTION. MANY SUBSTANCES THAT THE SCIENTIFIC COMMUNITY AGREES ARE DEMONSTRABLY DANGEROUS CAN PASS THESE CHARACTERISTIC TESTS WITH FLYING COLORS -- AND SUBSEQUENTLY GO UNREGULATED. AS A RESULT OF THIS LACK OF EFFORT TO LIST NEW WASTES OR TO RECONSIDER THE CHARACTERISTIC TESTS MANY DANGEROUS SUBSTANCES REMAIN UNADDRESSED

BY RCRA REGULATIONS.

THE DANGERS POSED BY THIS FAILURE ARE OBVIOUS. FOR EXAMPLE, DESPITE ALL WE KNOW ABOUT THE THREAT POSED BY DIOXIN, IT HAS YET TO BE ADDED TO EPA'S LIST OF HAZARDOUS WASTES OR TO BE REGULATED UNDER RCRA. WITHOUT ADEQUATE REGULATION, DIOXIN CONTINUES TO POSE A HEALTH THREAT -- AS WE KNOW FROM THE EXAMPLE OF TIMES BEACH, MISSOURI AND NEWARK, NEW JERSEY.

THESE AMENDMENTS ADDRESS THIS DEFICIENCY BY REQUIRING THE AGENCY TO SUBMIT A WORKPLAN TO CONGRESS ON THEIR EFFORTS TO LIST NEW WASTES AND TO DEVELOP NEW HAZARDOUS WASTES CHARACTERISTICS TESTS WITHIN THE NEXT TWO AND FIVE YEARS. THEY WILL ALSO REQUIRE EPA TO LIST AND TO REGULATE DIOXIN AND OTHER DANGEROUS WASTES AS HAZARDOUS WITHIN SIX MONTHS AFTER THIS LEGISLATION'S PASSAGE. THESE WASTES ARE EVIDENTLY WIDELY RECOGNIZED AS HAZARDOUS AND SHOULD HAVE BEEN

LISTED LONG AGO.

I BELIEVE THIS IS A SENSIBLE APPROACH TO ENSURING THAT EPA WORKS SWIFTLY TO BRING MORE WASTES UNDER REGULATION. ALTHOUGH I RESPECT THE AGENCY'S NEED TO MOVE WITH SCIENTIFIC CAUTION IN DETERMINING WHICH WASTES ARE HAZARDOUS, I DO NOT BELIEVE THAT CAUTION SHOULD MEAN THE PARALYSIS WE HAVE WITNESSED IN THE LAST FEW YEARS AT EPA.

THE SECOND MAJOR LOOPHOLE WHICH THE COMMITTEE MUST ADDRESS ALLOWS WASTES WHICH CONTAIN HAZARDOUS SUBSTANCES TO BE EXEMPTED FROM REGULATION, OR "DELISTED".

THE DELISTING PROCEDURE IS PROPERLY USED IN INSTANCES WHERE A WASTE SHOULD BE EXEMPTED FROM RCRA REGULATIONS. UNDER EXISTING LAW THIS IS AN IMPORTANT CORRECTIVE MEASURE FOR SITUATIONS WHERE EPA HAS MISTAKENLY LISTED WASTES THAT ARE NOT HAZARDOUS, OR WHERE CONDITIONS HAVE ALTERED THE THREAT TO HEALTH OR THE ENVIRONMENT. BUT IN MANY INSTANCES, WASTES THAT CONTINUE TO POSE A HEALTH AND ENVIRONMENTAL THREAT ARE SLIPPING THROUGH THIS DELISTING PROCESS.

FOR EXAMPLE, IN MY OWN HOME STATE OF CONNECTICUT, IT WAS ACCIDENTALLY DISCOVERED THAT A SLUDGE PILE WAS TEMPORARILY DELISTED EVEN THOUGH IT STILL CONTAINED HAZARDOUS SUBSTANCES INCLUDING ORGANICS. THIS HAS PROVED TO BE A NOT INFREQUENT SITUATION IN MANY INDUSTRIAL PROCESSES WHICH ARE LISTED FOR PARTICULAR HAZARDOUS SUBSTANCES BUT NOT ALWAYS FOR ALL HAZARDOUS SUBSTANCES.

THESE REGULATORY OVERSIGHTS HAVE OCCURRED BECAUSE DELISTING

REGULATIONS DO NOT ADDRESS THE FACT THAT WASTES ARE FREQUENTLY COMPOSED OF NUMEROUS HAZARDOUS CONSTITUENTS. EPA'S EXISTING REGULATIONS, HOWEVER, DO NOT ALLOW THE AGENCY TO REJECT A DELISTING PETITION IF THE PETITIONER'S WASTE CONTAINS HAZARDOUS CONSTITUENTS IN ADDITION TO THOSE FOR WHICH IT WAS ORIGINALLY LISTED.

THE LEGISLATION YOU ARE CONSIDERING TODAY WOULD ELIMINATE THIS DEFICIENCY. IT WOULD DO SO BY ADDING THREE REQUIREMENTS TO THE DELISTING PROCESS: CONSIDERATION OF OTHER CRITERIA AND FACTORS; GUIDELINES FOR THE SUBMISSION OF DELISTING DATA; AND A DEADLINE FOR TEMPORARY DELISTING PETITIONS.

THE FIRST IS THE MOST IMPORTANT. IT WOULD GRANT EPA THE AUTHORITY IT NOW LACKS TO CONSIDER ADDITIONAL CONSTITUENTS OR

OTHER RELEVANT FACTORS WHEN EVALUATING A DELISTING PETITION. EPA WILL HAVE THE RIGHT TO GRANT OR DENY A DELISTING PETITION BASED NOT ONLY ON THE ORIGINAL CONSTITUENT FOR WHICH THE WASTE WAS LISTED, BUT ALSO ON ANY ADDITIONAL HAZARDOUS CONSTITUENTS OR OTHER FACTORS. IN THIS MANNER, DELISTING PETITIONS WILL BE EVALUATED MORE CLOSELY FOR VARIOUS HAZARDOUS ELEMENTS THEY CONTAIN IN ADDITION TO THOSE FOR WHICH IT WAS ORIGINALLY LISTED. I BELIEVE THIS APPROACH WILL HELP GUARANTEE THAT ONLY THOSE WASTES WHICH POSE NO HEALTH THREAT WILL BE DELISTED OR REMOVED FROM REGULATION.

I UNDERSTAND THAT EPA IS PROPOSING REGULATORY CHANGES ALONG THE LINES OF THE MODIFICATIONS I'VE OUTLINED. FOLLOWING THE INTRODUCTION OF MY BILL, THE AGENCY PROPOSED LISTING DIOXIN AND REVISING THE DELISTING PROCEDURE. ALTHOUGH THESE REGULATORY

REVISIONS ARE NECESSARY, I BELIEVE THESE ISSUES SHOULD BE FIRST ADDRESSED IN LEGISLATION. ALTHOUGH I APPLAUD THE AGENCY FOR KEEPING PACE WITH THE CONCERNS OF CONGRESS, I ALSO RECOGNIZE THE UNIQUE PRESSURES IT IS NOW UNDER, THE UNCERTAINTITIES OF THE REGULATORY PROCESS, AND THE DIFFICULTIES OF OPERATING EFFICIENTLY WHILE IN TRANSITION UNDER A NEW ADMINISTRATOR. FOR THESE REASONS I BELIEVE THE LISTING OF DIOXIN AND OTHER NEW WASTES AND THE STRENGTHENING OF THE DELISTING PROCESS SHOULD BE EXPEDITED AND PROTECTED BY LEGISLATIVE ACTION.

I AM ALSO AWARE THAT THE ARGUMENT CAN BE RAISED THAT THESE REQUIREMENTS WILL CREATE MORE WORK FOR EPA AT A TIME WHEN THE AGENCY HAS LIMITED FINANCIAL RESOURCES. YET I BELIEVE THE COST TO EPA TO ENSURE THAT NEW WASTES ARE LISTED OR THAT DELISTING PETITIONS ARE GRANTED SAFELY IS QUITE SMALL IN LIGHT

OF THE OVERALL AGENCY BUDGET -- AND CERTAINLY SEEM A MINIMAL PRICE TO PAY FOR THE CONTINUED ASSURANCE OF A SAFE AND CLEAN ENVIRONMENT.

OTHER CONSIDERATIONS ADDRESSED BY THE BILL THAT I INTRODUCED ALONG WITH SENS. CHAFEE AND RANDOLPH ARE CONTAINED IN THESE AMENDMENTS. I WISH I HAD THE TIME TO ADDRESS THEM IN THESE REMARKS. NONETHELESS, I THINK UPON REVIEW THE SUBCOMMITTEE WILL FIND THAT THE REVISIONS WE HAVE SUGGESTED WORK TO CLOSE LOOPHOLES IN RCRA AND TO CONTRIBUTE TO THE PROTECTION OF PUBLIC HEALTH AND SAFETY. I WOULD URGE THE SUBCOMMITTEE TO ADOPT THESE AND THE PRINCIPLES I HAVE OUTLINED HERE TODAY WHEN THEY TAKE UP THE RCRA REVISIONS.

ENVIRONMENTAL DEFENSE FUND

TESTIMONY OF DAVID J. LENNETT

ON BEHALF OF THE

ENVIRONMENTAL DEFENSE FUND
NATIONAL AUDUBON SOCIETY
and the SIERRA CLUB

BEFORE THE

SUBCOMMITTEE ON ENVIRONMENTAL
POLLUTION

OF THE

SENATE ENVIRONMENT AND PUBLIC
WORKS COMMITTEE

ON THE
SUBJECT OF RCRA REAUTHORIZATION

June 9, 1983

1525 18th Street, N.W. Washington, DC 20036 ☎ 202•833•1484
OFFICES IN: NEW YORK, NY (NATIONAL HEADQUARTERS); WASHINGTON, DC; BERKELEY, CA; DENVER, CO

Good morning. My name is David Lennett, and I am a staff attorney with the Environmental Defense Fund (EDF). This testimony is submitted on behalf of EDF, the Sierra Club, and the National Audubon Society. EDF has been actively involved in the development of the hazardous waste regulatory program under the Resource Conservation and Recovery Act of 1976 (RCRA) since its inception. In 1978, EDF sued EPA to force compliance with RCRA's mandate to promulgate hazardous waste regulations. Since that time, EDF has filed several hundreds of pages of comments on those regulations, and has filed suit over weaknesses in the regulations. I am representing EDF in this litigation, and I recently had the pleasure to serve on the Advisory Committee for the recently released Office of Technology Assessment hazardous waste report. I appreciate the opportunity to appear before you to discuss the state of the RCRA program and what can be done to improve it.

The development of the RCRA program is still substantially incomplete. Almost seven years after the passage of the Act:

-- significant quantities of hazardous waste are still going to regular municipal landfills and huge quantities are burned in an unregulated manner;

-- major hazardous waste streams remain unidentified for regulatory purposes, including dioxins;

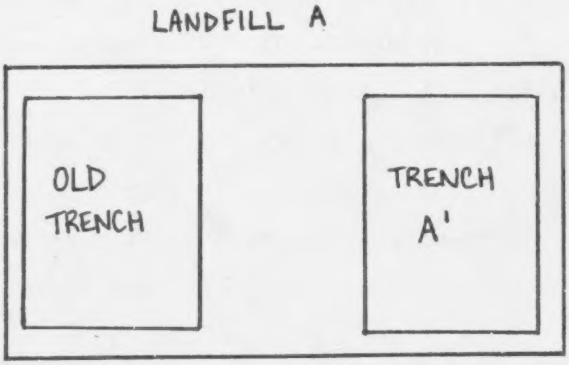
-- inadequate land disposal regulations fail to protect human health and the environment; and perhaps most importantly,

-- little has been done to encourage the use of appropriate technologies to recover, recycle, and treat hazardous waste.

To this point, EPA has addressed these weaknesses by either ignoring them or responding in an inappropriately sluggish manner. The RCRA Reauthorization process is an opportune time to encourage EPA to complete the RCRA program, and to provide a time frame for this task that better reflects the urgency to fill this need.

LAND DISPOSAL LOOPHOLES

The best way to appreciate fully the maze of loopholes and exemptions EPA has created in the land disposal regulation is by illustration. Take mythical landfill A and a new trench which will be built at the same facility called A' as pictured below. Optimally, trench A' would be built with the appropriate safeguards to reduce the likelihood of waste migration. If groundwater contamination occurred anyway, the contamination would be cleaned up by the owner/operator. Now, let's see how the regulations actually work.



1) Assume new Trench A' was built before RCRA was enacted and before the regulations were issued. It could have been built without liners and leachate collection systems. Obviously, mandatory cleanup requirements were not in effect.

2) Assume Trench A' was constructed today--over six and one-half years later and almost a full year after the landfill regulations were issued by EPA. The trench may still be built without liners and leachate collection systems. In fact, new trenches may be constructed that way until the facility is fully permitted, which may be years from now or never if the owner/operator closes his doors when EPA requests a permit application.

3) Now assume Trench A' is constructed after the landfill regulations were issued and filled with waste before January 26, 1983. Still, no liner required, and since waste is not accepted at that trench on or after January 26, 1983, any groundwater contamination caused by that unit is not addressed by the RCRA permitting regulations. Only units accepting waste after January 26, 1983, are "regulated units" and thus currently subject to cleanup requirements.

4) Assume Trench A' is a "regulated unit" and the owner/operator obtains an operating permit for the facility. If Trench A' contaminates groundwater, the contamination beyond the property boundary need not be cleaned up under the current

regulations. There is no buffer zone required either so Trench A' may sit next to the property boundary. Thus, the off-site contamination, which is the contamination of greatest concern due to potential neighborhood exposure, is unaddressed by the RCRA regulations.

The significance of all these loopholes cannot yet be quantified, but the following is currently known. According to EPA, 49 facilities have stopped accepting waste between July 26, 1982, and January 26, 1983, and thus can avoid the cleanup requirements in the regulations. Some these facilities are already contaminating groundwater at levels up to 360 times drinking water standards. Others are not monitored sufficiently to determine if they are contaminating groundwater.

Significantly, EPA does not know how many facilities partially closed to take advantage of this loophole. We expect the number to be very large. An owner/operator is likely to close the problem units at its facilities to avoid cleanup costs if its operation permits this limited flexibility.

Since the closures are primarily landfills and impoundments, some of which are probably unlined, it can be assumed many of these partial or complete closures will adversely affect groundwater if they have not done so already. Without the regulatory coverage, EPA must wait until the site poses an imminent and substantial endangerment, file suit against the owner/operator if he is still around (if not, the site becomes a Superfund site), and prove an imminent hazard exists (which includes doing the requisite date collection) to obtain cleanup. This is a ridiculous waste of Agency time and resources, and more importantly, requires waiting for the contamination to present substantial risks before it can be addressed. The better public policy is to cleanup the contamination when it is detected, as the regulations require.

To close the land disposal loopholes, S.757 needs to contain the following requirements:

1) The corrective action requirements of the land disposal regulations must apply to all units accepting waste on or after July 26, 1982;

2) The corrective action requirements must apply to all contamination caused by those units, on either side of the property boundary line;

3) Expansions or replacements of units must meet the liner and leachate collection requirements applied to new facilities. This requirement is already in S.757, as part of Section 5. However, we recommend strengthening this provision by limiting expansions prior to permitting to 10 percent, and by requiring EPA to initiate a permit proceeding for facilities conducting such expansions. In this manner, major additions to facilities will be accomplished during and after a permit process during which the facility will undergo the requisite

review to determine if it is designed and operated appropriately. We should seek to limit major expansions of facilities which do not ever intend to meet full RCRA requirements; and

4) Facilities obtaining a full RCRA permit must address contamination resulting from any waste units at the site. This requirement will accomplish two goals. First, it will clean up contamination caused by units closing prior to July 26, at fully permitted sites. Second, it will avoid the situation where a permit is sought for part of a facility while another part of the same facility poses a serious environmental problem. Such a situation undermines the public credibility of the permitting authority by authorizing continued disposal at a location already contaminating groundwater. Furthermore, it renders unnecessary the difficult if not impossible task of differentiating between contamination plumes at a site, because currently a plume from a regulated unit must be cleaned up as opposed to a plume from a non-regulated unit which need not be.

THE ROLE OF CITIZENS IN ENFORCEMENT

The regulated community is in substantial noncompliance with the significant RCRA regulations already in effect, and EPA and the states cannot handle the enforcement work load alone. EPA and state resources must be increased, but at the same time, additional authority to enforce the law should be made available to citizens so they can perform a value supplementary enforcement role.

The data available on compliance by the regulated community is consistently disappointing. In a March 10, 1983, report to OMB on groundwater monitoring requirements, EPA noted that out of 189 facilities inspected during July -September, 1982, only 62 were in compliance. Of the facilities in non-compliance, 64 had serious violations which would impair substantially the ability of the facility to detect contamination.

EDF has obtained copies of four other EPA reports concerning RCRA compliance and other program issues that were prepared on a regional basis. The following data is available from those reports:

- 712 facilities (out of 1,118) have failed to file the required financial responsibility information with Region II as of February 24, 1983.
- 26 facilities (out of 85) are not in compliance with groundwater monitoring requirements in Region II as of February 24, 1983.
- Region III is "uncertain" about Virginia's manifest compliance program because the state lacks resources to perform inspections.

- 14 of 16 facilities inspected by Region III (prior to December 30, 1982) were not in compliance with groundwater monitoring requirements. The Region did not know about compliance in states other than West Virginia. Half of the 14 facilities in West Virginia "appear to be affecting groundwater" nevertheless.

- As of February 4, 1983, only 12 of 46 facilities in Georgia had operational groundwater monitoring systems, and not all 12 were adequate. On a regional basis, only 208 of between 300 -325 facilities had systems in place in Region IV. Most closure and post-closure plans reviewed thus far by Kentucky are inadequate.

- Ohio estimates 81% noncompliance with groundwater monitoring requirements; Wisconsin has 100% noncompliance at its six facilities. Many facilities in Region V are not reporting quarterly monitoring data.

- Region V staff indicate they believe a "hard core" group of people are still operating outside the RCRA manifest system.

These same reports contain the following candid observations about the ability of EPA and the states to enforce the law:

- New York and New Jersey have two of the most ambitions regulatory programs, but "they do not and will not in the foreseeable future," have enough resources to implement effectively their programs.

- Region II's enforcement division has only two attorneys assigned to RCRA. "In the States, the problems of hiring freezes and duplicative administrative expenses for the enforcement programs are primary. Both inhibit effective implementation of the enforcement program."

- "Region III does not have sufficient resources allocated from Headquarters to pursue an aggressive and balanced compliance and enforcement strategy even if all positions are filled."

- Region III does not have enough staff to determine if authorized states are adequately enforcing groundwater monitoring requirements. The Region uses less than 1/2 person a year to review closure and post-closure plans, and it is concerned about lack to resources to evaluate financial responsibility submissions.

- Florida and Georgia are under hiring freezes, thus they "are unable to fully implement the compliance monitoring and, subsequently, the enforcement program we expect . . ." Resources are also a problem for Alabama. Georgia has yet to focus on the 34 facilities with non-operational groundwater monitoring systems. The Region is conducting fewer inspections now than it did previously.

- "All the states in Region V have hiring freezes and/or cutbacks in funds or staff. State programs are unlikely to grow much in the foreseeable future. Reources for enforcement are inadequate." Nevertheless, Region V relies on the states to conduct almost all compliance inspections and permitting reviews.

° Only one person in Region V is assigned to manage financial requirements and only one for groundwater monitoring.

The situation at Headquarters is not much better. In a January 12, 1983 Memorandum, the Assistant Enforcement Council for Waste informed his superior that resource shortfalls would not permit the performance of the following activities:

- Developing litigation under RCRA and Superfund;
- Developing Administrative Orders under RCRA and Superfund; and
- General legal support of the RCRA program.

The programatic resource needs for RCRA and Superfund were 141 work years in excess of the legal branch's capabilities. As of February 25, 1983, the same Assistant Enforcement Counsel for Waste informed Robert Perry that the resource shortfall had reached "crisis" proportions. Only two Section 7003 cases were projected to be filed in all of FY 83, and only 12 §3008 civil actions. Still, the Agency was "running far behind" these FY 83 goals, according to the February 25, Memorandum.

We believe two amendments to RCRA could greatly enhance the ability of local governments and citizens to enforce the law. First, Section 7002 of RCRA should be amended to authorize persons using the citizen suit to enforce regulations to seek fines and penalties to be paid into the federal treasury, as currently provided in the Clean Water Act. The potential imposition of fines and penalties provides a powerful incentive for violators to negotiate compliance terms with plaintiffs rather than delaying the case to avoid compliance costs. Recent legal activity conducted by the Natural Resources Defense Council under the Clean Water Act confirms this result. Often, the threat of litigation under those circumstances spurs compliance activity without filing suit.

Second, citizens should be authorized to bring Section 7003 civil actions to clean up sites which may pose an imminent and substantial endangerment to public health. Currently, citizen suits are available for enforcing regulations and to enforce the open dumping prohibition. However, where sites are posing the greatest health threats, that of an imminent and substantial endangerment, and government will not act for whatever reason, there are no avenues to obtain relief. A state nuisance action may theoretically be available, but attorneys fees and expenses are not typically awarded to prevailing plaintiffs in such cases, thus these cases will not be brought. The rapid cleanup of these dangerous sites should be everyone's goal. Providing an additional way to reach that goal is good public policy.

LISTING/DELISTING

Unless a hazardous waste has been specifically identified by EPA for regulatory purposes, the waste need not be managed as a hazardous waste, no matter how toxic it may be. When EPA issued its first list of hazardous wastes in May and July of 1980, it was a first cut, and as such, the list was incomplete. Even dioxins were not adequately identified. Yet not one new waste stream has been listed by EPA since July, 1980.

The House Energy and Commerce Committee presented an EPA schedule for decisionmaking on new waste listings in last year's report accompanying H.R. 6307 on page 23. According to that schedule, eight proposals for listing should have been forthcoming in 1982; one in March of 1983. Yet only one proposal, the dioxin proposal of April 4, has reached the Federal Register. And the dioxin proposal only covers certain chlorinated dioxins; it does not include brominated dioxins. More importantly, these delays are merely to reach the proposal stage; how long must we wait until these listings are finalized?

Meanwhile, the Agency is busy delisting wastes--approving the deregulation of wastes from particular plants. These delistings are occurring without notice and an opportunity for public comment; decisions are reached without examining all the constituents of concern in the waste; data in the delisting petitions are unverified and prepared without guidance as to its adequacy; and the decisions are largely based on a technically inadequate chemical procedure.

All the delistings completed so far are so-called "temporary delistings," meaning the Administrator can delist a waste before soliciting comment on the decision in the *Federal Register*. Not one of these temporary delistings has been made final thus far, and no time limit is placed upon the duration of these unilateral decisions made by the Agency. Recently, twelve oil refinery waste streams were delisted upon grounds subsequently questioned by EPA's staff, the State of Utah, and EDF. See Appendix I. However, to my knowledge, those delistings have *not* yet been revoked. In its Region IV program review, EPA officials discovered EPA was about to delist a facility which had contaminated groundwater up to 14,000 times drinking water standards, much to the State of Georgia's dismay. These premature decisions are much less likely to occur if EPA cannot act without prior public interaction. Requiring public comment also ensures the public will be aware of EPA's delisting decisions. These delistings often happen without any public announcement, since EPA waits months before announcing its decision in the *Federal Register*. Over 45 temporary delistings granted have not yet reached the *Federal Register*.

When EPA receives a delisting petition, it does *not* fully evaluate all the significant constituents in the waste stream before delisting it. The Agency merely examines the small number of constituents which were identified in the waste in

May, 1980, in order to justify regulation of the waste. The list of these constituents can be found in Appendix VII of the regulations. Appendix VII is incomplete; very incomplete for some waste streams. In some cases, EPA is aware that Appendix VII is incomplete. For example, Intex Plastics was delisted after examining the waste for three solvents but the background document on the waste states, "The Agency is presently aware that these solvents may contain concentration of additional toxic constituents . . ." The petroleum wastes mentioned above were delisted on the basis of two heavy metals, despite the likely presence of organic contaminants and other heavy metals. The consequence of this practice is that EPA is passing judgment on hazardous waste based on an incomplete constituent list, not reality.

EPA is delisting metallic wastes based on an extraction procedure (EP) which is technically defective and not designed for the job. The EP is designed to mimic co-disposal in a municipal landfill--only one reasonable mismanagement scenario, and to predict the leachibility of a waste in that environment. As such, it could be a useful device for identifying wastes for regulation since it addresses a particular form of potential mismanagement which can cause environmental harm. Unfortunately, EPA is using the EP as if it mimics the only mismanagement scenario and delisting wastes if they don't flunk the EP.

Worse still, the EP has been severely criticized for its technical inadequacies from many quarters, including the States of California and Utah, and the American Society of Testing and Materials. The State of California ran the EP and its own procedure on a waste stream. The waste passed EPA's EP (thus according to EPA it is not a hazardous waste), but flunked the California extraction procedure (thus still considered a hazardous waste in California). Groundwater monitoring results now show that contamination has occurred from the wastes; apparently California was correct about the waste's leaching potential. The California extraction procedure uses a more aggressive extracting medium. Utah has also noted that a facility with EP data showing a low leaching potential for its wastes has contaminated groundwater.

Currently, no guidance is provided by the Agency to petitioners on how to collect and submit data for requesting a delisting. Importantly, there is no guidance provided by the Agency on what constitutes a representative sample of a waste stream; the Agency relies on nothing more than the company's assurances that the data presented for delisting is representative. This issue of representative samples is centrally important for the purpose of ensuring that the data presented to the Agency accurately reflects the hazard level of the waste on a day-to-day basis.

The November 22, 1982 Federal Register notice contains a withdrawal of an Amoco delisting petition announced December 16, 1981, which provides an excellent illustration of the importance of explicit Agency guidance on representative sampling. Here, data alleged by Amoco to be representative was later found to be not at all representative. Unexpectedly high levels of the toxic metals lead and hexavalent chrome were found during additional sampling by the company. Amoco concluded that they had erred originally by not collecting samples from maximum depths throughout the lagoon. Such a mistake could have easily been avoided had even a minimum of Agency guidance been provided, for this error reflects a lack of understanding of correct sampling methods. The environmental consequences of this lack of guidance are potentially severe; waste with unacceptably high levels of lead and hexavalent chrome were burned in a municipal incinerator for up to a year before the error was caught. It is also important to note that the Agency does not routinely verify submitted data. Only five of four hundred petitions have been scrutinized with field inspections. Thus, if Amoco did not come forward, its waste would still be delisted.

Based on these inadequate delisting procedures, authorized states are also delisting wastes which are managed intrastate. Thus, the EPA delistings do not represent the full extent of the problem caused by the current delisting procedures. EPA's regulations must be improved as quickly as possible, so that the procedures of authorized states will be improved as well.

For these reasons, we strongly support Section 6 of S.757. It addresses the inadequacies I have just discussed by:

1) requiring EPA to consider a waste stream in its entirety before delisting it;

2) limiting the duration of temporary delistings to 12 months and requiring prior notice and comment;

3) establishing a deadline for the listing of additional wastes, including dioxins; and

4) requiring EPA to improve the EP and establish guidelines by which delisting petitions will be considered, including the appropriate use of the EP.

The bill should be strengthened, however, by shortening the deadline for listing dioxin wastes, and by requiring EPA to develop a "hazardous waste per se" characteristic instead of merely reporting to Congress on its progress in two years. This type of characteristic could greatly assist EPA in its efforts to identify additional wastes for regulation.

THE ONE TON EXEMPTION

During the past several months, representatives of the environmental and small generator communities have met to discuss and construct a statutory scheme which would both protect human health and the environment and minimize the burden of compliance on the small generator community. We feel we have accomplished these goals. We have developed a provision which provides for the following:

1) An 18 month deadline for EPA to promulgate regulations which would reduce the exemption to 100 kg/mo, provide for a 180 day storage period, require manifesting and disposition at Subtitle C facilities for the newly covered wastes, and otherwise vary from existing regulations but must be sufficient to protect human health and the environment;

2) A notification requirement effective 180 days after enactment applicable to generators generating greater than 100 kg/mo; and

3) The automatic reduction of the exemption to 100 kg/mo 30 months after enactment if regulations are not issued, coupled with manifesting and Subtitle C disposition, and limited recordkeeping and reporting requirements.

The provision also calls for assistance from EPA to educate small generators about their responsibilities, and preserves EPA's authority to lower the exemption further as may be necessary to protect human health and the environment.

We believe the provisions represent a reasonable first step in closing the small generator loophole. It offers the following advantages:

1) The requirements are phased in over a two year period to the same universe of generators--first the notification requirements and then the management requirements;

2) There is certainty as to which small generators will be covered. Thus, a two year planning and education period is provided so that the trade associations and EPA can make the system work; and

3) The quantity cutoff has already been adopted by a significant number of states, thereby increasing uniformity in the area and easing the integration of existing programs.

FACILITY DESIGN AND PERFORMANCE STANDARDS

EPA has failed to require hazardous waste facilities to use state-of-the-art technology to minimize releases into the environment and is considering further retrenchment. For example, new surface impoundments are not required to be double-lined and have a leak detection system. This kind of system was previously required in regulations issued in January, 1981. Only one liner is currently required. If surface impoundments are double-lined, no groundwater monitoring is required under the current scheme.

Existing facilities need not be lined at all, even if retrofitting is feasible. The Agency has exempted all existing facilities from liner and leachate collection system requirements regardless of the feasibility of retrofitting.

Similarly, the Agency is considering reducing the performance standards for incinerators--99.99 per cent destruction and removal efficiency. The Agency admits this performance standard is achievable, but is considering lowering the standard regardless, based upon incomplete release and toxicity data.

This failure to set design standards which minimize waste migration into the environment is unjustifiable. Contamination is difficult to detect; cleanup is expensive and complex to perform. Cleanup requirements are necessary when state-of-the-art technology fails to prevent waste migration, but they should not be used instead of discouraging waste migration in the first instance.

We urge the Subcommittee to instruct EPA to place greater emphasis on discouraging waste migration. This can be accomplished by requiring that new landfills and impoundments meet the double-liner requirements and that incinerators meet the 99.99% destruction and removal efficiency. Flexibility can be maintained by providing that EPA may issue regulations which provide for equivalent or greater containment.

STATUTORY RIGHT TO INTERVENE

Communities in which dangerous sites are located are naturally concerned about the pace of site cleanup activity. They are also concerned, however, that when remedial actions are taken those actions protect their health and their property over the long-term. This concern quickly transforms into bitter frustration and anger when agreements between EPA and responsible parties over cleanup activities are reached and the communities are not involved or consulted. They want and require a mechanism which ensures an ability to examine features of proposed settlements and, if necessary, present opposite points of view.

When a suit is filed by EPA, a principle mechanism for citizen involvement is intervention--becoming a party to the litigation. Intervention permits the citizens to present to the judge their views on a proposed settlement before it becomes operative. The judge is then free to adhere to or discard those views, but at least the citizens have had access to the process.

Recent opinions, however, have construed RCRA in such a way as to make it difficult for citizens, and states for that matter, to intervene in "imminent hazard" cases brought by EPA pursuant to Section 7003 of RCRA. These opinions have held that Congress did not confer a statutory right to intervene in Section 7003 cases. If these opinions are allowed to stand, intervention would have to be sought on a permissive basis, which is problematic because of proof required from the intervenor that EPA is not adequately representing the citizens' interest, a principle otherwise presumed. There is case law requiring proof of bad faith or malfeasance on the part of the government to overcome this presumption. See United States v. Associated Milk Producers, Inc., 534 F.2d 113 (8th Cir. 1976). Furthermore, timeliness requirements are more tightly construed in applications for permissive interventions than interventions pursuant to a statutory right. In short, the court has extremely wide latitude to refuse applications for permissive interventions, thus frustrating citizen attempts to participate in cleanup decisionmaking affecting their health and welfare.

Significantly, there are also opinions which hold that RCRA already grants a statutory right to intervene, including an opinion by Judge Propst in the case involving DDT contamination in Triana, Alabama which was recently settled. Thus, at one level, an important conflict in the law has surfaced which requires clarification.

However, intervention is more than that--its an issue of fundamental fairness. Communities which are threatened by dangerous sites should be able to have their say about the future of the site. Their entry into the process should not be difficult and burdensome, requiring extensive briefing and high legal expenses. Nor should they be discouraged from overseeing the government's work, thus providing an important set of checks and balances to the dynamics of the enforcement process.

A statutory right to intervene is not a unique or uncommon concept in environmental law. It already exists in RCRA for cases brought by EPA to enforce permits and regulations. The right also exists in enforcement cases under the Toxic Substances Control Act, the Clean Water Act, the Safe Drinking Water Act, the Clean Air Act, and probably many other laws in other fields which we did not attempt to locate. In fact, as a condition for a state to have an authorized RCRA program, either intervention as a matter of right or assurances by the State it will not oppose applications for intervention is required by EPA. See 40 C.F.R. §123.128(f)(2). A right to intervene is no less appropriate in Section 7003 cases.

PERMITTING DEADLINES

As you are already aware, facilities in existence on November 19, 1980, can continue operating as interim status facilities until such time as EPA initiates a permit proceeding. To qualify for interim status, a facility owner/operator merely had to notify the Agency it existed, fill out a couple of forms, and achieve compliance with interim status standards. The interim status standards are primarily administrative in nature, because they were never designed to be the Section 3004 standards necessary to protect human health and the environment. The three criteria EPA used in formulating the interim status standards were:

1) Compliance would not require substantial capital expenditures (i.e. retrofitting);

2) Compliance can be achieved within six months; and

3) The standards would be simple enough so as not to require substantial interplay with EPA personnel.

45 Fed. Reg. 33159
(May 19, 1980).

The difference between interim status standards and full permitting standards is quite dramatic. For example, the interim status standards merely required incinerator emissions to be visually monitored for their color and opacity, while the full permitting standards require a performance level of 99.99 percent destruction and removal efficiency. As stated above, liners are not required for expansions of facilities during interim status. And closure requirements during interim status are less stringent than under a full permit. Water infiltration need not be "minimized," the cap need not be as impermeable as the bottom liner to avoid the "bathtub" effect, and the design of the cap need not specifically address waste settling and subsidence. See 47 Fed. Reg. 32385 (July 26, 1982). It is imperative, therefore, that the permitting process for hazardous waste facilities be completed as quickly as possible so that the necessary upgrading of existing facilities to meet RCRA standards can be accomplished. We urge the Subcommitte to incorporate into S.757 a provision which includes:

1) A date by which a facility owner/operator must file a complete permit application to retain interim status. This requirement will screen facilities which are not capable of meeting full RCRA standards;

2) A deadline of 1987 for the permitting of all land disposal facilities and incinerators at a minimum, after which the operation of a facility without a permit is unlawful. The inclusion of incinerators is critical because wastes diverted from land disposal facilities should be burned at incinerators meeting the RCRA standards, or else Section 5 of S.757 will merely transform a groundwater problem into an air pollution problem. Significantly, a 1987 deadline does not differ greatly from EPA's current permitting schedule for incinerators; and

3) A requirement that EPA report to the Congress annually, as part of its budget package, the progress EPA and the states are making toward meeting the permitting deadlines; whether existing resources are sufficient to meet the permitting deadlines; and what additional measures would be required to meet those deadlines if existing resources are insufficient. This requirement should enable Congress to assist the Agency in its efforts to meet those deadlines.

LAND DISPOSAL LIMITATIONS

There is an emerging consensus that land disposal is the least desirable mode of waste management. Most recently, the Congressional Office of Technology Assessment concluded that:

1) land disposal is most suitable for residuals from treatment operations;

2) some wastes which cannot be treated should not be land disposed;

3) the current regulatory program does not directly provide incentives to utilize alternative technologies; and

4) the net effect of the current RCRA program is to continue to make land disposal economically attractive.

What is the basis of the emerging consensus?

-- Most of the Superfund sites are land disposal facilities which failed;

-- Containment systems (liners and leachate collection systems) cannot be relied upon for the period of time the wastes remain hazardous; and

-- The cost of cleanup and compensation is much greater than the cost of using the more appropriate technology in the first place.

Yet recent EPA estimates are that 2.2 billion gallons of waste was landfilled in 1981; and only 272 million gallons of waste was incinerated in 1981. How much of the landfilled waste could be handled by other means? California estimates 75 per cent for its wastes.

A recent study for EPA of nine commercial waste management firms revealed that less than 80 per cent of available incineration capacity was used in 1981, and the outlook for future additions is "uncertain" because of the unused capacity. Only 56 per cent of the chemical treatment capacity of these firms was used in 1981, as well as less than one fourth of the resource recovery capacity. We are simply not encouraging the use of more appropriate technologies.

The nation is not further along in this area because the RCRA program at EPA has yet to join the consensus. Very little R&D money is devoted to alternative technologies, and recent testimony by EPA on this subject indicates outright hostility toward the concept of alternative management:

> We believe that most wastes can be satisfactorily managed in the land and that it can be done with a reasonable margin of safety more cheaply in this manner. On keeping with the general philosophy stated earlier, it may be that recycling or destruction is preferable from a strictly health and environmental protection standpoint, but for many wastes, the reduction in risk achieved is probably marginal and may not be worth the cost.

Testimony of Ms. Rita Lavelle, Assistant Administrator, EPA, before the House Subcommittee on Natural Resources, Agriculture Research and Environment, December 16, 1982.

Congressional leadership is required to minimize the use of land disposal. A growing number of states on their own initiative are making major strides in this direction but such movement is not sufficient, especially when state efforts are confronted by arguments of competitive disadvantages concerning firms in nearby states.

Section 5 of S.757 requires EPA to begin moving in the appropriate direction. It places a one year deadline upon the Agency to restrict wastes from land disposal facilities, and provides a limited variance from those restrictions when no other management options are feasible. However, in our judgment, S.757 contains several shortcomings which merit modification:

1) Nothing definite occurs for wastes not addressed after one year. The provision merely contains a mandate to issue regulations from "time to time" thereafter. We urge the Subcommittee to take a longer view of this process, and place EPA on a timetable to complete its review of candidate wastes for restriction;

2) The standard for restricting wastes needs more explicit language that land disposal is the least desired option for managing wastes because of the shortcomings associated with the technology. EPA requires more explicit guidance than "protecting human health and the environment" to reach these decisions. The existing land disposal regulations were based on that standard--now we are doing something else--we are choosing one technology over another--and the basis for those decisions needs to be provided in the statute; and

3) Bulk liquids should be prohibited from landfills. It is not clear whether Section 5(c) already contains this prohibition. If not, it is inconsistent to address containerized liquids but fail to address the disposition of bulk liquids.

As you are aware, Section 5 of H.R. 2867 incorporates the list of wastes California has restricted from land disposal facilities and requires EPA to reach a decision on these wastes within one year of enactment. We view this provision as a more specific version of S.757's mandate to "consider each hazardous waste which is prohibited from land disposal by any State." It is entirely appropriate to build upon the work performed by the state which has the most experience in this area and which has already gone through a lengthy rulemaking involving all interested parties.

H.R. 2867 also contains a provision which imposes the prohibition if EPA fails to make decisions on time. We support this provision. Mere deadlines in statutes no longer provoke the necessary response from EPA and from OMB to perform mandated functions. The need to divert wastes from land disposal facilities is of such critical importances that extraordinary approaches should be applied to ensure the work gets done.

THE DOMESTIC SEWAGE EXEMPTION

Under current regulations, EPA has completely exempted from RCRA controls hazardous waste which is discharged into a publicly owned treatment works (POTW) via a sewer system. See 40 C.F.R. §261.4(a)(1)(ii). The justification for the exemption is the Agency's interpretation of the term "domestic sewage" in the Solid Waste Disposal Act of 1965. According to the Agency, the term includes industrial waste mixed with domestic sewage. Consequently the term exempts such wastes from RCRA regulation pursuant to the statutory definition of solid waste in section 1004(27) of RCRA.

The Agency has acknowledged that the creation of this exemption was not the ideal course of action. It stated at the time the exemption was created:

> The exclusion of domestic sewage and mixtures that pass through sewer systems to POTWS is based on Congressional intent, not an Agency determination about the relative health and environmental risks posed by such waste streams. The Agency acknowledges that some mixtures of domestic sewage with other wastes may present environmental risks and that some non-domestic wastes may have properties similar to these of exempted domestic wastes. In response EPA can only assume that such factors were not determinative in the Congress' creation of the exclusion.
>
> 45 Fed. Reg. 33098
> (May 19, 1980).

EDF does not agree with the Agency's interpretation of Congressional intent. We believe Congress did not intend to create wholesale exemptions in the RCRA program, but rather intended to require the Agency to integrate the RCRA program with the other environmental programs pursuant to section 1006(b) of RCRA.

Because of the Agency's position on the domestic sewage issue, it has never determined whether the wastes now escaping RCRA controls are otherwise adequately regulated. The Agency does not know the amount of hazardous waste disposed via the sewer system, the numbers of generators utilizing the exemption, or the type of wastes currently disposed in this manner.

Of course, the domestic sewage exemption issue also involves the pretreatment program under the Clean Water Act. Therefore, EPA should seek to integrate the two programs in a manner consistent with the RCRA mandate of protecting human health and the environment. EDF believes that a rational approach for addressing the RCRA-CWA interface should answer the following questions:

1) In the absence of an operating pretreatment program, are there hazardous wastes which EPA should not allow to be dumped down the sewer because of the risks they pose to human health and the environment?

2) Will a functioning pretreatment program adequately cover the full panaply of hazardous waste generators and the complete range of hazardous wastes capable of being identified pursuant to section 3001 of RCRA?

3) Are there hazardous wastes which should not be dumped down the sewer because they are better handled in another manner, with or without a functioning pretreatment program?

The Subcommittee should require EPA to gather the data necessary to answer these basic questions. Once the data is collected, Congress and EPA can determine whether the exemption is appropriate, or whether modifications in RCRA, the pretreatment program, or both are required. EDF also believes that the Administrator should use the notification authority in RCRA to gather the data in an expeditious manner.

FEDERAL FACILITIES

In direct contradiction to Section 6001 of RCRA, EPA has exempted Department of Energy hazardous waste activities at the Oak Ridge facility from RCRA regulation. The decision was made by then Administrator Burford as noted in a memorandum written by Paul Cahill, former Director of the Office of Federal Activities, attached as Appendix II.

Because of this decision, Region IV and the states have not "sought to assure compliance by DOE facilities with RCRA," according to EPA's program review report on Region IV. This situation must be corrected. In fact, the matter raises the broader issue of ensuring RCRA compliance at all federal facilities.

States and citizens will be the primary enforcers of RCRA regulations at federal facilities. If compliance is to be obtained, regular inspections must be conducted and the inspection reports made available to the public. Violations should be reported to the upper management of the federal agencies to ensure corrective action. EPA should be encouraged to compile the inspection reports and violations, and report to Congress and the public periodically on federal facility compliance.

FEDERAL COMMON LAW

The federal common law of nuisance is an extremely valuable compliment to the statutory requirements of RCRA, especially for state and local governments. Unfortunately, the Supreme Court in its 1981 ruling in City of Milwaukee v. Illinois, 68 L. Ed. 2d. 114 (1981) has put a cloud over its further use.

Keeping the federal common law in place is important for the following reasons: 1) Despite the best efforts of Congress to create a comprehensive regulatory scheme, neither Congress, EPA, nor the states can foresee and immediately fulfill all regulatory needs. Federal common law is necessary to fill the gaps. 2) While Illinois v. Milwaukee appears to have left state common law in place, the federal common law is still necessary, particularly, for instance, where an interstate problem must be addressed.

While we feel that the Court's opinion in Illinois v. Milwaukee can and should be interpreted narrowly, it would be desirable for Congress to dispel any possible confusion on this issue by making clear that the federal common law has not been preempted by RCRA. No new remedies would be created; rather traditional remedies would be preserved. We therefore urge the Subcommittee to address this important issue.

ATTORNEYS FEES

In 1977, Congress amended the Clean Air Act to clarify that attorneys fees were allowed for petitions for review in the Court of Appeals as well as citizen suits in the District Court. We urge the Subcommittee to make a similar clarification in Section 7006 of RCRA. In the last year, EDF has filed or intervened in five Petitions for Review in the Court of Appeals challenging EPA's action. None of these actions is frivilous. Three of these actions, for instance, were necessitated by blatantly unlawful actions by EPA in revoking or suspending RCRA regulations. Yet through a drafting oversight in 1976, we and other parties are not entitled under RCRA to collect attorneys fees for the many hours of legal work we have had to devote to forcing EPA to adhere to the mandate of the law. We urge the Subcommittee to correct this oversight.

EXPORTS

In late December, 1980 and early 1981, two hazardous waste generators notified EPA of their intent to send mercury contaminated wastes to a mine in Mexico for disposal. The first shipment apparently was sent. The second shipment appears to have been stopped by Mexican authorities after belated notification by EPA. The operator of the mine, Charles Nugent, an American, was arrested by Mexican authorities for violating Mexican health and contraband laws and remains in jail in Mexico. On February 3, 1983, a 14-count indictment was prepared by the U.S. Justice Department against Nugent's son for transportation and storage violations related to the waste destined for Mexico.

This episode illustrates the weakness of RCRA in controlling exports of hazardous waste. Although EPA must be notified annually of the content and destination of shipments abroad, EPA has no authority to stop those shipments. In addition, the notifications need not include how the waste will be managed, how often the shipments will be made, and how much waste is involved.

EDF has examined export notices from 1980 -82. Although the vast majority of exports are to legitimate destruction facilties in Canada and recycling facilities in Europe and Japan, the potential for mischief is obvious. We clearly need to keep better track of our wastes traveling overseas and to provide a way to control dangerous exports. The improper management of our waste overseas will not help our relations with other nations--particularly developing nations.

RCRA should be amended to require more complete notifications of what and how much is being exported and the proposed method of treatment or disposal. No waste should be allowed to be exported without EPA's approval. Such approval should be based on consultations with the receiving country to insure that the receiving country approves, as well as an independent determination by EPA that the method of treatment or disposal in the foreign country will not endanger public health or the environment.

Thank you for the opportunity to present this testimony. I will be glad to answer any questions that you may have.

APPENDIX I

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
WASHINGTON, D.C. 20460

JAN 7 1983

OFFICE OF
SOLID WASTE AND EMERGENCY RESPONSE

Mr. Eldon Rucker
American Petroleum Institute
2101 L Street, N.W.
Washington, DC 20037

RE: WCBDF0501

Dear Mr. Rucker:

I am writing as a follow up to the December 2nd meeting between API, EPA, EDF and NRDC, to review the status of refinery waste exclusion petitions and to clarify the Agency's concerns with the land treatment of refinery wastes.

The Agency is currently reviewing the exclusion process in order to determine if a change is required in the way the Agency evaluates petroleum refinery waste exclusion petitions. EPA has historically employed the Extraction Procedure (EP) to determine the leaching potential of toxic metals in landfilled and landtreated wastes. We are now questioning whether the EP is an appropriate means of evaluating the leaching potential of metals from landtreated oily refinery wastes. Specifically, we have the following concerns:

1) The oil in these wastes, which tends to bind or complex metals so that they are not available for leaching (as evidenced by EP results) degrades during land treatment. This could eventually result in the release of the metals into the underlying strata and ground water.

2) The oil present in these wastes acts as a water repellant, which results in insufficient contact between the inorganic portion of the wastes and the extraction fluid for the EP extraction to adequately model real world conditions.

3) Some oil present in these wastes may be operationally defined as a solid by the EP (i.e., will not pass a 0.45um filter) and yet act as a liquid in both the land treatment and landfill situations. Such a situation would mean that toxicant entry into the aquifer would be greatly enhanced.

4) The EP is designed to simulate the co-disposal of municipal wastes with industrial wastes in a landfill

and may have little relevance to the land treatment facility situation.

5) The EP has little relevancy to surface runoff, volatilization, or wind dispersal hazards; all of which could be a important pathways for environmental problems from land treatment facilities.

To resolve the concerns expressed above, as well as those resulting from the discussions at the meeting (and after reviewing the data you supplied), we have formulated specific questions to be answered by future studies. These are:

1) What happens to the organic fraction of the waste during the land treatment process? What are the organics converted to? Does residual organic character remain which would tend to complex with the metals and prevent their migration?

2) Ddes oily refinery waste contain organic material that is not extractable using common organic solvents (e.g., THF, benzene, methylene chloride)? If so, what is the nature of this material?

3) Do metals in landtreated waste have a significant tendency to migrate from the point of application through the mechanisms of run off, volatilization or wind erosion?

4) Does the non-filterable hydrocarbon fraction of the waste act as a liquid during land disposal or landtreatment?

5) If the EP is inappropriate for the land treatment situation, what test procedures or evaluation criteria can be used to evaluate potential hazards assocoated with hazardous waste land treatment?

As you can see most of these questions will be hard to answer. We thus welcome any suggestions or other assistance that API's membership can give us. If you would like to get together again after you have had time to think about these questions, please give David Friedman a call at 382-4770.

Sincerely yours,

David Friedman for ASC

Alan S. Corson
Chief
Waste Characterization Branch

cc: Claussen
Lehman
Corson
Straus
Kimmell
Flynn
Poppiti
Lennett, EDF
Lash, NRDC

APPENDIX II

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
WASHINGTON, D.C. 20460

JAN 12 1982

OFFICE OF
THE ADMINISTRATOR

SUBJECT: Non-Application of the Resource Conservation and Recovery Act (RCRA) to DOE Atomic Energy Act Facilities -- ACTION MEMORANDUM

To

FROM: Paul C. Cahill, Director
Office of Federal Activities Paul C Cahill

TO: John Daniel
Chief of Staff

Attached is the 309 comment letter I intend to send to Department of Energy in regard to their proposed nuclear and chemical waste incinerator. A long-disputed issue within EPA - whether or not RCRA applies to disposal of chemical wastes from DOE nuclear facilities - is answered in the negative on page 2, line 12-15 (Highlighted language on Attachment "A" hereto).

Events at Senior Staff Meeting

At the EPA Senior Staff meeting on January 6, 1982, I reported on this proposed comment, but stated that I intended to circulate the letter to OGC and Solid Waste before I sent it out so that as far as EPA was concerned: (1) all offices were in agreement or (2) opposition could be voiced and considered before the letter went out. However, at that point in the staff meeting the Administrator indicated the EPA position had been set and that it was in agreement with my intended comments: that DOE could legally and fully regulate such solid waste disposal. EPA would retain a general federal facility oversight authority under the OMB Circular A 106 process under Executive Order 12088.

General Counsel's Concern

Chief Counsel called me after the meeting. To be certain that staff is correct in its understanding of the Administrator's view, he recommended that I pass my letter by the head office before dispatching it.

Confirmation Requested

At his behest, I am forwarding this letter to you. If you feel there is any uncertainty remaining on this issue, or that the Administrator should wish to review this letter before OFA sends it out, please proceed in that manner. Otherwise return the letter for OFA's release.

Second Opinion Letter to be Prepared

Attachment "B" is a photocopy of a July 30, 1980 opinion request from DOE's General Counsel for EPA's view on the apparent ambiguity in RCRA. With the confirmed approval that EPA's position is as stated in our 309 comment letter, OFA and General Counsel will proceed to reply to this inquiry consistent with the policy stated in the 309 letter.

Attachments

cc/w attachments
Robert Perry
Office of the General Counsel

APPROVE John E. Daniel
DISAPPROVE ______
COMMENT ______
DATE Jan 12, 1982

LET'S REBUILD, AMERICA

IN THE 80's

Statement
# of the
Chamber of Commerce
# of the
United States

ON: RESOURCE CONSERVATION AND RECOVERY ACT
AMENDMENTS (S. 757)

TO: SUBCOMMITTEE ON ENVIRONMENTAL POLLUTION OF THE
SENATE ENVIRONMENT AND PUBLIC WORKS COMMITTEE

BY: JOSEPH G. GERARD

DATE: JUNE 9, 1983

The Chamber's mission is to advance human progress through an economic,
political and social system based on individual freedom,
incentive, initiative, opportunity and responsibility.

STATEMENT
on
RESOURCE CONSERVATION AND RECOVERY ACT AMENDMENTS (S. 757)
before the
SUBCOMMITTEE ON ENVIRONMENTAL POLLUTION
of the
SENATE ENVIRONMENT AND PUBLIC WORKS COMMITTEE
for the
CHAMBER OF COMMERCE OF THE UNITED STATES
by
Joseph G. Gerard
June 9, 1983

I am Joseph G. Gerard, Vice President, Government Affairs, for the National Association of Furniture Manufacturers and the Southern Furniture Manufacturers Association, and I am appearing today on behalf of the Chamber of Commerce of the United States. With me is Dr. Harvey Alter, Manager of the Chamber's Resources and Environmental Quality Department. Dr. Alter is a chemist with extensive experience in solid waste management.

We recognize the dedication of this Subcommittee and the Congress in their efforts to improve the nation's hazardous waste management program and we appreciate this opportunity to express the concerns of small business regarding the legislative changes in the Resource Conservation and Recovery Act (RCRA) as proposed in S.757, the "Solid Waste Disposal Act Amendments of 1983."

The Chamber strongly supports the sound environmental management of all wastes. At the same time, the Chamber advocates the prudent use of resources and the application of reasonable, practical, and balanced controls to assure environmental quality without excessive paperwork and expense.

Obviously, environmental management must be achieved with some trade-offs and common sense and that is the subject of our appearance as regards the obligations of small businesses. They are prepared to do their fair share to achieve proper hazardous waste controls and to assure human safety and health. In return, they seek a balance between those obligations and the regulatory requirements that may be imposed.

Our testimony today is directed at the problem of the so-called "small generators," businesses that produce 1000 kg (approximately 2200 lbs.) per month of hazardous wastes -- or less. We recognize that some of the small generators may not be small businesses but the concerns are the same when the potential regulatory requirements are viewed in light of the potential environmental benefits.

We support the basic management approach for small amounts of hazardous waste as proposed in Section 4 of S. 757. We believe, however, that this management approach can be improved by fine-tuning the legislation thereby focusing EPA's efforts in this area.

We hope to convince you of that by proposing legislative guidelines that would assure a rational regulatory system for small amounts of hazardous waste.

BACKGROUND

The Environmental Protection Agency (EPA) has the authority to regulate all hazardous waste. In current regulations, it has chosen to exclude small generators at the 1000 kg per month benchmark. This is perhaps an arbitrary figure. The question is, at what benchmark, or decision point, is most of the waste captured into a proper, yet rational, system?

The balance between proper, in the sense of environmental protection, and rational, in the sense of society not spending to muct to control too little of the waste, was debated extensively in the 97th Congress. The debate covered how much regulation should be required of small businesses to achieve this elusive balance.

Environmental laws, including the Resource Conservation and Recovery Act (RCRA), are both legally and technically complex. The resulting regulations are often baffling, generally beyond the ken of small business firms that cannot afford to hire appropriate staffs or engage consultants and laboratories. Recognizing this introduces yet another element toward achieving the balance: a regulatory system must not be so complex that it cannot, and therefore will not, be compiled with.

There is a debate over how many small generators produce how much hazardous waste. For example, it has been estimated that if the 1000 kg per month benchmark were reduced to 100 kg per month, an additional 130,000 businesses would be regulated, such as gas stations, dry cleaners, auto repair shops, and small manufacturers.

It has also been estimated that these additional 130,000 firms contribute only one percent of the total hazardous waste. The remaining 99 percent is contributed by the larger generators, some 60,000 now regulated by EPA.

These numbers are inexact, but all estimates seem to accept the same order of magnitude of the number of new firms that would be regulated and the percentage of additional waste that would be captured. In all estimates, many more firms would be regulated than are now and very little (certainly less than five percent) of the waste would be captured. Whichever source's numbers are used, the conclusion is the same: there would have to be a great deal of effort, and public expense, to control a very small portion of the waste.

To change the benchmark, from 1000 kg per month to some lesser amount without careful consideration of small business concerns, would further complicate achieving the necessary environmental protection.

EDUCATING FOR COMPLIANCE

It appears that part of the interest in lowering EPA's small generator exemption level to 100 kg/month is based on the belief that similar regulatory programs in place in more than twenty states cause no burden for small businesses. Based on what we learned in a recent survey, this is an erroneous conclusion.

The survey of forty small businesses believed to generate small quantities of hazardous waste and located in states which have a lower exemption level, or no exemption level, shows the following:

- most small generators have little or no knowledge of hazardous waste laws;
- there has been little contact between state regulatory agencies and small generators as to the requirements of state hazardous waste laws;
- small generators gain most of their information on waste management from business/trade associations, not from state agencies or waste haulers; and
- most small generators now combine their wastes and use normal solid waste haulers for disposal, and thus do not incur additional disposal costs or regulatory burdens.

Although state hazardous waste laws affect small businesses, the state agencies apparently do not educate the business people. This conclusion was reinforced by interviews with local chamber officials. Therefore, the effectiveness of such hazardous waste regulatory programs, as well as the associated burden on small business, cannot be measured accurately. To assume that a similar federal regulatory program would not be overly burdensome on small business is not justified.

There is no question that small businessses are willing to do their fair share to manage hazardous waste properly. However, the basis for responsible action is knowledge of what constitutes a hazardous waste and an awareness of applicable waste management regulations.

The full results of the small business survey are included as an appendix to this statement.

ACHIEVING A BALANCE - A WORKABLE ALTERNATIVE

Balancing proper environmental control of the hazardous waste from small generators with a reasonable regulatory and financial cost to small businesses is possible.

After debate over this issue last year, the Chamber worked with several business and environmental groups to find an appropriate regulatory program to capture hazardous waste without burdening the generators.

Some of the goals set for such a program were: protect health, safety and the environment; minimize of compliance costs for small businesses, considering the small amount of waste available for capture; minimize of governmental cost by way of self-enforcement; maintain the EPA program for the other 99 percent or so of the waste; recognize in RCRA the inherent problems of small business; and, develop a national information system to educate small generators in their responsibilities.

While the Chamber does not offer specific language for such a proposal, the following guidelines are recommended:

- provide for identification, segregation and notification to the transporter by a generator of more than 100 kg/month, but less than 1000 kg/month of hazardous waste, when the wastes are shipped off-site, by a self-enforced program not dependent on extensive regulatory action;

- require waste transporters to notify disposal facilities of the quantity and hazardous nature of the waste;
- require such waste to be managed at an appropriate hazardous waste facility;
- allow flexibility in hazardous waste identification, storage, transport, and tracking so that the small generator is not unnecessarily burdened by complex regulations and procedures;
- encourage reuse, recycling and materials recovery from wastes -- the most environmentally sound method of "disposal;"
- there has to be an understanding of small generators' waste management practices to determine what level of federal control is necessary to protect the environment before promulgation of regulations and this may require a study; and
- establish an intensive federal and state education program for small generators to assure compliance with RCRA.

CONCLUSION

Because of the total quantity of waste, and because of the large number of businesses involved, regulations for control of hazardous waste from small generators must reflect a balance between proper environmental protection and minimum financial and regulatory burden on business.

If the legislative approach in Section 4 of S. 757 is targeted on those firms that generate more than 100 kg/month, a significant portion of the nation's hazardous waste will be captured.

However, if small generators are not educated for compliance with RCRA, or if they are unfairly harassed for their lack of understanding of a complex regulatory program, they may not be able to control or dispose of their wastes properly and will contribute to the environmental problem, rather than to the solution.

APPENDIX

Small Business Survey
on
Awareness of Hazardous Waste Regulation
Summary of Findings

Introduction

This report presents the findings of a survey to evaluate small business awareness of state and federal hazardous waste regulation.

Part of the interest in lowering EPA's small generator exemption level to 100 kg/month is based on the belief that similar regulatory programs in place in more than twenty states cause no burden for small businesses. It was the objective of this survey to test this assumption as well as to inquire into some of the hazardous waste management practices of small businesses.

Method of Survey

During the week of March 27, 1983, local chambers of commerce and 40 small businesses in six states, all of which have a regulatory exemption level less than 1000 kg/month for hazardous waste, were contacted.

Each business was contacted by telephone to determine:

- level of knowledge of existing hazardous waste regulations, both federal and state;
- source of information as to the small generator requirements;
- level of awareness that they may generate some quantity of hazardous waste; and
- present method of waste disposal used.

When possible, the telephone interviewer spoke directly to the owner of the establishment. In all cases, however, survey responses were gathered from persons with managerial responsibility.

The following states were selected because of their low regulatory exemption levels.

State	Exemption Level	No. Surveyed
Rhode Island	0	5
Louisiana	0	7
Minnesota	0	7
New York	100 kg/mo	8
New Jersey	100 kg/mo	7
Michigan	100 kg/mo	6

Knowledge and Awareness of Hazardous Waste: Response to Questions

- What do you know about federal hazardous waste laws?

35% No knowledge 57 % little knowledge 8% fairly familiar

A vast majority of those small businesses surveyed (92%) have little or no knowledge of federal hazardous waste laws. Eight percent said they are "fairly familiar" with RCRA.

- Are your state hazardous waste laws the same or different than federal hazardous waste laws? If different, how do they differ?

50% no knowledge 12% same 38% Different

In this case, 62% were misinformed or had no knowledge as to the significant difference between their state and the federal hazardous waste law. Of the 38% who said the laws differed, none could say how they were different. This significant finding -- that 100% of those responding have no specific knowledge of the lower exemption level -- at best, shows confusion as to what is required of small generators and, at worst, is symptomatic of an unworkable regulatory program.

- How were you made aware of your state hazardous waste laws?

61% Business/Trade Association
15% News Media
-0- Waste Hauler

-0- State EPA
-0- Federal EPA
24% No knowledge

A majority said they were educated by various business and trade associations. The only other information source cited was the news media. Almost a quarter of those surveyed had no knowledge of state hazardous waste laws.

Significant by its absence is any reference by the respondents to state environmental agencies or the waste haulers as sources of information on state hazardous waste laws. This lack of communication as to what responsibilities small generators have in managing their wastes is evident in each state surveyed.

o Do you generate hazardous waste?
43% No 57% Yes

Of those aware that they generate some hazardous waste, most were not sure as to exactly what type or why the waste would be hazardous.

o What do you do with your wastes?
87% Dispose in trash 13% Special disposal used

Special disposal for most of those surveyed was anything different from a normal solid waste disposal service. Only one respondent possessed a state identification number, manifested his waste and used a licensed hauler for hazardous waste disposal. His present hazardous waste disposal costs range between $250 and $350 per month. In contrast, the regular solid waste disposal cost for the same business is $60 per month.

Conclusion

Based on the survey results of forty small businesses believed to generate small quantities of hazardous waste and located in states which have a low exemption level, or no exemption level, for regulating hazardous waste, the following information has been gained:

- most small generators have little or no knowledge of hazardous waste laws;
- there has been little contact between state regulatory agencies and small generators as to the requirements of state hazardous waste laws;
- small generators gain most of their information on waste management from business/trade associations and not from state agencies or from their waste haulers; and
- most small generators now combine their wastes and use normal solid waste haulers for disposal, and thus do not incur additional disposal costs or regulatory burdens.

Although state hazardous waste laws affect small businesses, the state agencies apparently do not educate the business people. This conclusion was reinforced by interviews with local chamber officials. Therefore, the effectiveness of such hazardous waste regulatory programs, as well as the associated burden on small business, cannot be measured accurately. To assume that a similiar federal regulatory program would not be overly burdensome on small business is not justified.

National Solid Wastes Management Association
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TELEPHONE (202) 659-4613

EUGENE J. WINGERTER
EXECUTIVE DIRECTOR

TESTIMONY

of

Hugh Mullen

Director, Government Relations
Conversions Systems, Inc.

Chairman, Institute of Chemical Waste Management
National Solid Wastes Management Association

on

S.757
Solid Waste Disposal Act Amendments of 1983

Before The

Subcommittee on Environmental Pollution
Committee on Environment and Public Works

U.S. Senate

on

June 9, 1983

- **Institute of Waste Technology**
  - *Waste Haulers Council*
  - *Sanitary Landfill Council*
  - *Liquid Waste and Sludge Transporters Council*
- **Waste Equipment Manufacturers Institute**
- **Institute of Waste Equipment Distributors**
- **Institute of Chemical Waste Management**
- **Institute of Resource Recovery**
- **International Council of Waste Service Industries**

Mr. Chairman and members of the Subcommittee, my name is Hugh Mullen. I am Director of Government Relations for Conversion Systems, Inc., headquartered in Horsham, Pennsylvania. I also serve as Chairman of the Institute of Chemical Waste Management, an official institute of the National Solid Wastes Management Association (NSWMA), the national trade association representing the waste service industry.

NSWMA represents more than 2,000 private companies engaged in the collection, treatment, processing and disposal of solid and hazardous waste. Our member companies have been involved since the mid-1970s in developing and offering services responsive to the Solid Waste Disposal Act and the Resource Conservation and Recovery Act. The Institute of Chemical Waste Management is composed of those firms offering treatment and disposal services for hazardous wastes under RCRA.

We are delighted to have this opportunity to appear again before this subcommittee to share our perspective on the necessary legislative framework to achieve the objectives of the Solid Waste Disposal Act, the Resource Conservation and Recovery Act of 1976 and its subsequent amendments in 1978 and 1980.

In a sense, however, we are also disappointed to appear today. We worked closely with you and your staff last year in fashioning a bill to reauthorize RCRA and close many of the loopholes in its coverage.

That legislation was approved by your subcommittee, but, unfortunately, it was never brought to the Senate floor in the closing days of the "lame duck" session. Companion legislation had passed the House of Representatives overwhelmingly earlier in 1982.

We hope and expect that this committee will approve S.757 in substantially its present form. The bill is very close to that which was reported out by this subcommittee last year.

As we are all so well aware, there has been a great deal of public comment of late concerning EPA's "hazardous waste" program. To those of us whose business is the proper management of hazardous waste as well as to those of you whose responsibility it is to fashion a regulatory policy for proper management of those wastes, the public confusion over the term "hazardous waste" is most disturbing. Most of the criticisms have been directed towards the Superfund "hazardous waste" program, not the RCRA "hazardous waste" program we are discussing today. As you recognize, Superfund is designed to deal with "problem" hazardous waste facilities while RCRA is designed to assure proper management "solution" hazardous waste facilities. Superfund is remedial, while RCRA is preventive.

While much remains to be done to bring the entire RCRA program fully in place, few would dispute the enormous strides that have been taken to remedy the situation as it existed when the Act became law in 1976. While we can be disappointed that progress in Superfund has not come more quickly, we should take some comfort that the RCRA program is already beginning to be felt. Facilities throughout the country are being upgraded and the necessarily-higher costs of waste management are encouraging waste reduction and recycling. Facility standards for all waste management technologies are now in place. The time has come to move on to a new phase of improving the program.

We would encourage the committee to incorporate as an objective of the 1983 authorization the twin goals of accelerating the pace of RCRA implementation while closing present loopholes in its coverage. Last year's bill, moved a long way in this direction and we recommend your early approval of S.757, a bill closely resembling that legislation.

Let me address some of S.757's salient points and add a few points on other areas which might merit the attention of the subcommittee now or at some time in the not too distant future. Because of the enormous volume of important legislation for the Environment and Public Works Committee this year, we suggest that every effort be made to expedite consideration of this bill without opening entirely new subject areas which might delay its consideration and introduce doubts as to whether it will be enacted. This program needs a steadying hand both in terms of Congressional direction and Agency implementation. Virtually all of the issues have been before the committee for well over a year and are thoroughly familiar to parties which have participated in development and discussion of the legislation.

We strongly support reauthorization of the Solid Waste Disposal Act for an additional four years and emphasize the necessity of providing a continuing strong commitment of federal resources to state agencies for their essential role in implementing this vital program. In this, we strongly support Sections 2 and 3 of the bill.

Section 4 of the bill has as its objective the closure of the exemption presently available to "small quantity generators" who produce less that 1,000 kg of hazardous waste monthly, a bit more than one ton a month. Representing solid waste collection and disposal firms which are forced unwittingly into handling of hazardous waste as a result of the present exemption, NSWMA applauds the concern and responsiveness of this committee in its legislation last year and again in S.757 incorporating Section 4 of your bill. While the provisions are slightly different, both are well conceived attempts to respond to the needs of small quantity generators, transporters and disposers and state and federal regulatory agencies. This issue has been widely discussed over the past two years and particularly since the small quantity generator exemption was a focal point of Senate and House deliberations on RCRA last year.

There is no doubt that the present non-system of regulating small quantities exposes refuse haulers and operators of resource recovery facilities and sanitary landfills to unnecessary and sometimes catastrophic risks. As you will recall, EPA announced in May of 1980 its intent to bring all generators producing 100 kg per month or more under the RCRA system before 1985. S.757 would do no more. In fact, it directs EPA to subject commercial and industrial generators of hazardous waste to no more than a simple notification to their waste transporter and requires the transporter to provide notice to the treatment or disposal facility. This is the essential element of regulation. As written, S.757 would not require the federal government or the state agencies administering RCRA to become involved in the process at all if they chose not to be. Furthermore, the bill directs EPA to study the problem created by lessened regulation of small quantity generators and recommend a separate regulatory system which will satisfy the needs for proper management to protect human health and the environment while not unduly burdening these hazardous waste producers. We support the section as written.

We could also support amendments to Section 4 to make it conform more closely or exactly replicate the small quantity generator section of the House bill H.R.2867. That legislation would provide a de minimus exemption from the notification requirements, an exemption we do not feel is necessary because of the very slight burden of the minimal notification requirements, and would require EPA to develop regulations compelling all hazardous waste produced by generators of 100 kg a month or more to go to licensed hazardous waste facilities within two years of enactment.

Both the House and Senate versions incorporate the essential notification requirement which will allow waste transporters to know that they are handling hazardous waste so that this can be done safely and also allow treatment and disposal facilities to handle these wastes, or refuse to handle them, so as to protect human health and the environment. This is an essential provision of the bill.

Since last December, when it became apparent that the 97th Congress would not be able to complete action on the reauthorization bill, our association has met with an informal coalition of a couple dozen industries and trade associations representing "small quantity" generators. We have spent hundreds of hours in dozens of meetings trying to understand our respective problems and fashion recommendations to the Congress which would provide an adequate level of protection to workers handling these wastes, facilities managing these wastes and sufficient assurances to government regulators that these wastes are being managed in such a way as to minimize threats to public health and the environment. The consensus emerging from this group was shared with your staff and is represented in the language which appears in S.757.

This language recognizes that small quantity generators often experience difficulty in determining which of their wastes are hazardous, but we were pleased to learn in our discussions with the group that most of these industries apparently produce only a limited number of waste streams so that each industry might be educated by its trade association or suppliers more easily than we had formerly been led to believe. We also learned, however, that many of those who handle hazardous wastes in "small quantity generator" companies may lack the sophistication that a large corporation can bring to its management of hazardous waste. This bill provides a simplified notice requirement which will be sufficient for transportation, treatment and disposal facility operators to determine how best to manage these wastes.

Furthermore, subjecting the broader regulatory program for small quantity generators to a study and separate rulemaking seems to make sense and, although we are challenging in the D.C. Circuit Court of Appeals EPA's authority to grant any quantity-based exemption from the hazardous waste regulatory program, we recommend the Congress legislate requirements for a notification within 3-6 months and a more tailored regulatory program for small quantity generators as a second phase.

We would note one portion of Section 4 which we feel should be considered in a separate context, if at all. Subsection (b)(3)(B) appearing at line 22 on page 5 requires EPA to promulgate revisions of the criteria under Sections 4004(a) and 1008(a)(3), supposedly to assure protection of sanitary landfills against receipt of small quantities of hazardous waste. We believe the notification called for earlier in the new Section (b) will be sufficient to eliminate the danger from small quantities of hazardous waste. If there is some doubt on this point, we would suggest that the legislation be amended to exclude the possibility of depositing small quantities of hazardous waste in non-hazardous waste disposal facilities altogether, rather than require an upgrading of every sanitary landfill for this purpose. As you know, there are only 270 landfills which handle hazardous waste in the country, for example, whereas there are 13,000 non-hazardous waste municipal landfills and countless thousands more non-hazardous waste industrial landfill. It will be far more cost effective to manage small quantity generators' wastes in hazardous waste landfills than to upgrade the many thousands of non-hazardous waste landfills to make them safe for hazardous waste.

On the other hand, should the intent be to direct federal concern towards the adequacy of the 4004(a) and 1008(a)(3) criteria for the purpose of assuring the integrity of municipal waste facilities without reference to small quantities of hazardous waste, our concern changes. As we have told this committee in the past, we are desperately concerned that the resources that EPA has available to it be focused on assuring the success of its hazardous waste program. We did not object when President Carter phased out the federal funds available for non-hazardous waste programs, nor when President Reagan completely ended federal financial support for non-hazardous waste programs. Without that financial support, states have no "carrot" to bring their facilities into conformance with the criteria of Section 4004(a) and 1008(a)(3). While we recognize that those who fashioned this legislation in the 1976 amendments intended a commitment by the federal government to upgrading solid waste management in the country, we also recognize the severe strain on the present resource availability to EPA for this purpose and respectfully suggest that available resources be concentrated on hazardous waste program improvements.

Yesterday this committee took testimony on land disposal issues which have been raised in conjunction with reauthorizing the Solid Waste Disposal Act. At that time, a member of our industry, John Mobley of Mobley Industries, Austin, Texas, testified on his experiences with deep well disposal and shared with the committee his concerns in the land disposal area. We wholeheartedly concur with his prepared remarks. Rather than subject the committee to a repetitive exercise let me just briefly state that we endorse Section 5 as written. We support prohibiting the land disposal of wastes which cannot be safely disposed of in any of the various land disposal technologies and we support the minimization or even the prohibition of disposal of "liquid" hazardous waste in landfills. We strongly oppose any provisions which would automatically trigger prohibitions on land disposal of any waste without the opportunity of a public rulemaking. Such a provision is included in the House bill, H.R.2867, and we not only encourage you to reject this approach, but to include language in your committee report specifically taking exception to the possibility that any waste disposal alternative could be prohibited without the opportunity for public comment, or alternatively, a finding by a competent technical authority that the practice represented such an imminent public hazard as to require an emergency action later to be confirmed by a public rulemaking.

We support Section 6 of the bill to improve the listing and delisting process whereby EPA identifies which wastes are subject to regulation as hazardous wastes. We have some technical improvements which we would suggest, but the subject certainly merits inclusion in your final bill.

Section 7 aims to close another important regulatory loophole, namely the burning of hazardous waste in boilers. Because this practice has the ostensible purpose of heat recovery, this practice has been exempted as a "beneficial use" under RCRA. It has now been three years since we took EPA to court on this issue and we continue to emphasize the urgency of closing this loophole. We are pleased that over the past three years there has been a growing recognition of this problem and many other groups have come forward to bring you this same message. When the Office of Technology Assessment released its report to the public this Spring, Joel Hirshhorn of OTA succinctly summarized the problem when he stated that boilers were engineered to produce heat, not destroy toxic chemicals. Without question, thermal destruction of some hazardous wastes in industrial boilers can be done with safety to the environment. Just as certainly, there are other wastes which are inappropriate to be burned in industrial boilers and certain types of industrial boilers which are incapable of rendering hazardous wastes safe for the environment. We reiterate our steadfast position that all hazardous wastes should be brought under RCRA regulation. If EPA determines that certain industrial practices represent no significant threat to public health and the environment, we would recommend that these practices still be regulated under RCRA but subjected to a lesser regulatory burden.

Section 8 addresses a subject on which we testified last year. We have testified several times before this committee about the importance of a fair and vigorous inspection program to enforce RCRA. It is important not only to ensure compliance with the permit conditions for these facilities but to reassure the public that the government is responsibly regulating the operation of these facilities. For both reasons, we commend the program mandating frequent inspection of all facilities which treat and dispose of hazardous waste, both on-site and off-site, both public and private.

These inspections should be conducted by trained EPA inspectors and the Congress should direct EPA to establish by rulemaking the required frequency for such inspections by class of facility.

This is provided for in Section 8. The section also provides that EPA study the possibility of certifying non-government inspectors to conduct these inspections. We believe this study would be a waste of money. We are anxious to improve inspections and expand the ability of EPA to enforce the law and, thus, enjoy public confidence. But, we suggest that there are many problems associated with deputizing non-government persons to perform these governmental responsibilities.

We have no problems with Sections 9 or 10 of the bill.

In Section 11, the bill creates a new procedure for review of final regulations under the Act. We are satisfied that the present system of reviewing these regulations in the U.S. Court of Appeals for the District of Columbia has advantages which outweigh the alternatives suggested in the bill. Under the present system, judges in the D.C. Circuit have developed an expertise on federal regulatory matters which, to our mind, outweighs any merits in having these matters considered in other circuits throughout the country.

We support Sections 12, 13 and 14 of the bill.

We would respectfully suggest that two additional and important sections be added to your bill. These sections would address two problems which we believe are perceived clearly by members of this committee: the continued existence for unregulated discharge of hazardous wastes into POTW waste water systems and the long stretched-out projected timetable for final RCRA permitting.

On April 14 of this year, John King of Systech Corporation, representing the Institute of Chemical Waste Management, testified before this subcommittee on the subject of reauthorization of the Clean Water Act. He called to your attention the sluggish pace of EPA in producing pretreatment standards required both under the Act and under terms of a court order. The repeated delays in promulgation of pretreatment standards for industries, coupled with the administrative exemption under RCRA which EPA has provided for hazardous waste being discharged into Publicly Owned Treatment Works (POTWs) is resulting in a considerable discharge of wastes in a virtually unregulated manner which should be appropriately regulated under RCRA. EPA has identified under terms of a court agreement 21 industries for which pretreatment standards are being developed. Within the last months, we have seen some indication that EPA is moving at last in this area. General pretreatment standards are in effect, but these do not deal with the specific waste streams generated by the 21 identified industries, nor do they take effect very quickly.

We would propose that you add a new section to S.757 to require that six months following enactment, waste generated by these 21 industries would lose their exemption under RCRA unless EPA has completed its rulemaking for that industry. As you will recall, the entire logic of granting an exemption to these industries was the supposition that pretreatment standards would be in place to protect POTWs from receiving toxic chemicals and therefore control release of these pollutants into surface water. The absence of pretreatment standards or a regulatory finding that further controls are not necessary to protect POTWs nullifies the logic of the exemption. This approach would have two advantages. First, it would encourage EPA to complete its long-delayed rulemakings so that these industries can continue to discharge into POTWs. Second, in the event EPA does not promulgate the regulations in a timely fashion, it would ensure that these wastes are managed as RCRA-regulated hazardous wastes to the extent that the waste streams are, in fact, hazardous. Since the pretreatment standards are not available to offer this protection, it is appropriate that RCRA eliminate this loophole for wastes which EPA has identified as requiring pretreatment but which have not yet been subjected to a final rulemaking.

Finally, since this legislation is aimed at closing "loopholes" which presently exist in our framework of hazardous waste regulation, let us suggest what we consider to be the single largest loophole in the federal hazardous waste program, namely the fact that only fourteen facilities in the country today have been measured and approved to meet RCRA standards. To put it another way, that means EPA has been able to permit an average of one facility every six months since RCRA was enacted. At this rate, EPA should get all of the facilities operating today under interim status in another 3500 years. Seriously, EPA has projected that it will be another eight or ten years before it is able to complete its permitting cycle. We consider the extended period of time before all interim status facilities receive final RCRA permits as the biggest loophole under RCRA because it continues to allow most of the facilities handling most of the wastes in this country to continue in a substandard regulatory mode for years to come. I am sure that if the public recognized this fact it would be outraged.

We urge the committee to adopt a final section of RCRA to require EPA to call all Part Bs within nine months. That is, the Agency should require all operators of interim status facilities to file an application for their final permit indicating how they would satisfy the strict new standards by an early and certain date. Both are important. We support legislatively establishing a timetable for permitting, but the most important thing is to require those who intend to continue in the business of managing hazardous waste to tell EPA how they will comply with the final standards. This step is necessary to eliminate the adverse competitive impact of allowing the Agency to call all Part Bs staggered over the next several years. Phased-in permitting would put facilities whose Part Bs are called early in the process at a competitive disadvantage because they would be required to meet the tough new standards while competing against facilities operating under the less stringent requirements of interim status. Now that the land disposal standards are final, EPA has all the regulations it needs in place. We must get on with the job of replacing those facilities which do not meet the new standards with new facilities or technologies which do. Apparently EPA needs a legislative push in this direction. We can think of no greater priority for the Agency to focus its resources on and we respectfully suggest that this committee require EPA to do just that, focus its resources on measuring all existing hazardous waste facilities by the strict standards we now have in place.

The public has confused the problems of hazardous waste facilities with the potential for RCRA facilities because it has no experience with RCRA facilities. All it sees are facilities which were constructed before the RCRA standards became effective and which have never been measured by that yardstick. Surely the public deserves better. We hope you share our concern.

I have appreciated this opportunity to share the thoughts of the waste service industry with your committee again. I would be pleased to try to respond to any questions which you may have.

LAUNDRY
CLEANING
COUNCIL

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TESTIMONY OF THE LAUNDRY CLEANING COUNCIL ON THE PROPOSED AMENDMENTS TO THE RESOURCE CONSERVATION AND RECOVERY ACT (S. 757) GIVEN BEFORE THE SUBCOMMITTEE ON ENVIRONMENTAL POLLUTION OF THE SENATE COMMITTEE ON ENVIRONMENT AND PUBLIC WORKS

June 9, 1983

John J. Contney
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Chairman, Laundry Cleaning Council

Elizabeth A. Whittleton
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LCC

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The Laundry Cleaning Council (LCC) represents six national trade associations with members in the dry cleaning and laundry industry.*/ We are testifying on the proposed amendments to the Resource Conservation and Recovery Act (RCRA) because the amendments could have a significant impact on many of the approximately 72,000 businesses in the dry cleaning and laundry industry. Of these, approximately 43,000 plants employ some 343,000 people (or about 8 employees per plant), averaging among them annual sales of approximately $140,000. The remaining 29,000 stores, which have no paid employees, are so small that government statistics show average sales of $17,400 annually.

The Laundry Cleaning Council, on behalf of its members, which are primarily small businesses, fully supports S. 757. In particular, our industry supports the provisions in S. 757 calling for an EPA study on the small generator waste disposal issue and the promulgation of regulations based on that study.

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*/ International Fabricare Institute (IFI), Institute of Industrial Launderers (IIL), National Association of Institutional Laundry Managers (NAILM), National Automatic Laundry and Cleaning Council (NALCC), Textile Care Allied Trades Association, Inc. (TCATA), Textile Rental Services Association of America (TRSA).

We believe that the bill represents the most constructive approach available to improving health and the environment in a balanced manner. Accordingly, although we wish to suggest later in our testimony certain refinements to the small generator and land disposal prohibition amendments, we are here to urge the Senate to maintain the balanced regulatory approach of S. 757.

* * * * *

A comprehensive study of the small generator issue is necessary not, as has been implied, as primarily a delaying tactic but as the only rational way of developing information upon which action can be taken. Absent a study as directed in S. 757, the costs and benefits of potential changes in the small generator exemption are, at best, uncertain. This uncertainty is reflected in the results of the recent report of the Office of Technology and Assessment (OTA).*/

For example, two significantly different values have been developed for the contribution of small generators to the total generation of hazardous waste. EPA's 1980 contract study estimate of 0.8% and OTA's re-estimate of approximately

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*/ "Technologies and Management Strategies for Hazardous Waste Control," Office of Technology and Assessment, 1983. Relevant portions attached as Appendix A.

8% differ significantly even though they are derived from the same data base. Neither study has determined the degree of hazard of small generator waste.

The OTA report in many instances recognizes the need for additional information.*/ While we as an industry do not welcome additional regulations, we certainly acknowledge the responsibility to comply with necessary regulations based on scientific information. By contrast, mandated changes in the law without regard to fact or need may result in unwarranted economic disruption for our industry and others.

This potential disruption is best illustrated by showing the economic consequences of two RCRA changes that have been proposed elsewhere, a drop in the small generator exemption to 100kg per month and a complete ban on land disposal of wastes with more than 0.1% halogenated organics. The relevant economic facts of the industry can be summarized as follows:

- The most representative plant sample across the spectrum of our industry would be a retail or "neighborhood" dry cleaning store using perchloroethylene, a "halogenated organic" solvent.
- The average retail cleaning store has gross annual sales of $140,000 and an average net profit before federal taxes of $4,200.**/

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*/ See Appendix A at 9, 17, 53-54.

**/ Both figures are extrapolated from the 1977 U.S. Census of Service Industries Statistics, and industry operating costs survey statistics for the retail dry cleaning industry.

- That average store generates approximately 125kg per month of hazardous waste, most of which is composed of inert constituents.[*/] With newly developed technology just beginning to be used, the hazardous constituent - perchloroethylene (perc) - can be reduced to 1-2%, or less than 1/2 gallon per month.
- The estimated costs for disposal of the perc-contaminated inert wastes at an approved sanitary landfill would range from $4,300-$7,200 annually.[**/] If land disposal of these wastes were prohibited, the only available alternative method of disposal (high temperature incineration) would cost approximately $13,200 annually.[***/]

In summary, then, a drop to a 100kg/month exemption level would cost up to $7,200 annually per plant versus an annual profit of $4,200, while a land disposal ban would cost up to triple the annual profit - for disposal of yearly waste with approximately 5-1/2 gallons of hazardous constituent.

With these concerns in mind, we wish to suggest several refinements to the amendments which we believe can further their environmental purposes yet avoid unnecessary harm to the members of our industry.

[*/] Information based on industry technical analyses, confirmed by EPA studies.

[**/] These figures are based on contacts with hazardous waste haulers in Montgomery County, Maryland, and include the costs of drums and pick-up service.

[***/] See Exhibit B.

Small Generator Exemption

Proposed changes to § 3002 of RCRA would direct EPA to complete a study of the small generator issue within two years of enactment and, based upon that study, develop a regulatory program governing the disposal of wastes generated in quantities less than 1,000 kg per month. Regulations applicable to small generators would be effective within three years of enactment.

We fully believe that such a study should be conducted, and that the study will allow for a reasoned determination of how best to approach the matter of small quantity generators. The Congress should not decide to reduce or eliminate the exemption by statute, particularly without the benefit of scientific review of the matter. EPA is best suited to study the problem and to determine its magnitude in relationship to the overall hazardous waste issue. A thorough study could prevent a rash reduction of the small generator exemption, which reduction could be most damaging to members of our industry and even to the nation.*/

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*/ EPA noted in its 1980 contract study that fully regulating small generators may be counterproductive for all parties involved. For EPA, "the requirement to control small volume generators could divert resources from higher priority problem areas among large volume generators. For generators, the high cost of legally disposing of wastes may act as an incentive for illegal disposal. Consequently, effective relief measures should both relieve major economic impacts without sacrificing environmental quality and allow the RCRA system to operate efficiently in high-priority areas." (Appendix C).

The only problem we see with the amendment to § 3002 is a need for clarification of its requirement for containerization of small quantity wastes. The proposed § 3002(b)(1)(B)(iii) should make clear, either through an amendment to the bill or through legislative history, that the proper method for containerization or handling of small quantities of hazardous wastes may best be recognized and achieved by those persons carrying out the disposal. Such flexibility would allow wastes being hauled to a sanitary landfill by a transporter to be containerized in the most efficient and effective method mutually agreed to by the generator and transporter that is consistent with RCRA.

Land Disposal Limitations

The proposed amendment to § 3004 of RCRA would require EPA to promulgate regulations within 12 months of enactment prohibiting the land disposal of specified hazardous wastes identified or listed under § 3001. In determining those wastes for which land disposal would be prohibited, EPA would consider those wastes which are prohibited from land disposal by a state and those which contain significant concentrations of halogenated organic compounds.

Currently, approximately 85% of the plants with dry cleaning in our industry use perc - a halogenated organic solvent. A second solvent, fluorocarbon 113, is also a halogenated organic compound. Since dry cleaning systems can only use the specific solvent for which they are designed, operators cannot change their processes by simply switching solvents. Even if they could, the only other solvent available for dry cleaning - petroleum solvent (which produces a waste considered hazardous due to its ignitability) - could not be used as a replacement solvent in most areas of the country because of fire code restrictions. Accordingly, because of the inflexible nature of cleaning equipment and of the materials that are cleaned, together with the small-business nature of the industry, any land disposal amendment could have a significant impact on persons in the industry.

Because of the importance of this issue, we are pleased that the Senate bill proposes to have the matter of land disposal studied by EPA before promulgating prohibitions on land disposal of specific hazardous wastes. Direct congressional prohibitions on the land disposal of particular wastes would lack the benefit of the reasoned and scientific assessment which EPA can best give. This expertise certainly should be employed in developing a land disposal regulatory program.

Nevertheless, while we strongly approve of the Senate bill provisions, we believe the land disposal amendment needs certain modifications. We recommend that four refinements be made:

(1) Though it is appropriate to require EPA to determine which hazardous wastes should be banned from land disposal, it would be

difficult for the Agency to complete the task of considering several hundred listed or identified hazardous wastes in 12 months. EPA must be given sufficient time to determine adequately what land disposal problems exist and the nature of those problems. Expedited rulemaking without the benefit of a proper study could well create undue burdens with no corresponding improvements in the land disposal situation.

(2) It would be advisable to direct EPA to study the land disposal issue in conjunction with the small generator study. Any EPA ban on land disposal applied to a particular hazardous waste regardless of its source would effectively eliminate the status of small generators that generate that type of waste, irrespective of whether the small generator level is set at 1,000 or 100 kilograms per month. Because of this interrelationship, the most effective way to address these matters would be in a combined study.

(3) As just mentioned, the amendment would subject even small quantity generators to all prohibitions on land disposal. Since this would largely defeat the purpose of providing an exemption for small quantity generators, the land disposal amendment should be amended to clarify

that land disposal prohibitions would not apply to small quantity generators, at least not until EPA regulations promulgated under the small generator amendment discussed above include such prohibitions. Indeed, the matter of land disposal prohibitions applicable to small quantity generators should explicitly be left to EPA's small generator study (or the combined study suggested above) and explicitly excluded from the scope of any amendments to § 3004.

(4) Perhaps most important, EPA should be granted sufficient discretion to relax a prohibition against land disposal of a given type of waste where a solid waste mixture contains small absolute quantities of the banned material. A blanket prohibition against land disposal of halogenated organic compounds would mean that dry cleaning and laundry industry members would have to find alternate methods of disposing of certain process wastes which are classified as hazardous even though they contain very small quantities of such compounds. Where particular processes or types of wastes can be shown not to present the dangers to which the amendment is addressed, EPA should

be authorized to except those wastes from an otherwise applicable ban on land disposal.[*]

Blend and Burn

LCC is also concerned with one specific application of the proposed blend and burn amendment to RCRA. Some waste generated by use of the second most commonly used cleaning solvent in our industry, petroleum, is hazardous under RCRA because it is ignitable. While these wastes are in many cases reused as fuel, the proposed amendment to § 3010 would subject owners of facilities that burn fuels containing such petroleum waste, or producers or distributors of such fuels, to the full regulatory requirements of the blend and burn provision.

Under the amendment, cleaning plants could not burn petroleum waste without complying with section 3010 requirements even though the petroleum fuel is "hazardous" solely because it has a high Btu content and can easily be so burned. None of the environmental problems typically associated with burning hazardous wastes apply to burning otherwise nonhazardous ignitable wastes. It is incongruous, to say the least, to regulate the burning of ignitable wastes. Accordingly, the amendment to section 3010 should specifically exempt fuels classified as hazardous solely due to ignitability.

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[*] The OTA report previously mentioned also recognized, in the small generator context, the legitimacy of taking into account the reduced degree of hazard posed by wastes that are largely inert by weight. Appendix A at 26-27.

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LCC supports S. 757 and its approach of basing any significant regulatory changes on completion of EPA analyses of the small generator and land disposal issues. The Senate bill goes a long way towards allowing science and reason to determine the most effective methods of improving public health and the environment. We believe the inclusion of the LCC recommendations discussed here will further the goals of hazardous waste control, but do so in a manner that takes into account the legitimate needs and concerns of the dry cleaning and laundry industry as well as other industries composed mainly of small businesses.

**The Society of the
Plastics Industry, Inc.**

SPI

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STATEMENT

on the

SOLID WASTE DISPOSAL ACT AMENDMENTS OF 1983 (S. 757)

before the

SUBCOMMITTEE ON ENVIRONMENTAL POLLUTION

of the

SENATE COMMITTEE ON ENVIRONMENT AND PUBLIC WORKS

for the

SOCIETY OF THE PLASTICS INDUSTRY, INC.

by

Herbert L. Spivack

June 9, 1983

I am Herbert L. Spivack, President of Mereco Products Division, Metachem Resins Corporation of West Warwick, Rhode Island. I am testifying today on behalf of The Society of the Plastics Industry, Inc. (SPI).

SPI represents approximately 1,200 member companies and is the major national trade association of the plastics industry. Its membership is responsible for the production of more than 95% of the plastics materials produced in the United States and about 75% of the domestic sales of plastics materials. The association's seventy operating units and more than 300 committees are composed of resin manufacturers, distributors, machinery manufacturers, plastics processors, moldmakers and other plastics industry-related categories. I have served as Chairman of SPI's Epoxy Resin Formulators Division for two years, 1981 and 1982, and have also been a member of SPI's Board of Directors. Additionally, I am a member of the Environmental Affairs Committee of the Federated Chambers of Commerce of Rhode Island.

My testimony today will focus on Section 4 of S. 757 which is concerned with regulation of small quantity generators of hazardous waste. I will also briefly touch on a matter of general concern for the plastics industry raised in Section 5 of the bill on land disposal limitations. I want to emphasize that SPI fully supports the objectives of the Resource Conservation and Recovery Act (RCRA). The handling, transportation and storage, treatment or disposal of hazardous waste must be conducted in a manner that minimizes the risk to human health and the environment.

Mereco Products Division employs 17 individuals who are engaged in the formulation, sales and distribution of epoxy resins. We have been in the epoxy resin business since 1960. Epoxy resin formulation is a custom business. We blend and supply epoxy resins and chemicals to our customers who convert them to inert materials that are used primarily as coatings, insulators and sealants for electronic components. Perhaps our most familiar product is epoxy adhesives commonly available at the local hardware store.

The first concern I will address is the regulation of small quantity generators. SPI concurs in the need to regulate the hazardous waste generated by small and medium-size companies. The general handling, transportation, storage, treatment or disposal of hazardous waste must be conducted in a manner that minimizes the risks to human health and the environment. It is the concern of SPI, however, that the requirements of the legislation provide the Environmental Protection Agency (EPA) sufficient flexibility to promulgate regulations for small quantity generators that allow industry specific variations from the rules for large quantity generators. It is clear that in some cases such action would pose less of a risk to human health and the environment.

SPI supports Section 4 of S. 757 because of the regulatory flexibility provided to the Administrator of EPA to establish regulatory standards and requirements for businesses that generate less than 1,000 kilograms of hazardous waste per month that may vary from requirements applicable to large quantity generators.* The potentially positive impact of this regulatory flexibility may be illustrated through a more detailed description of the epoxy resin formulating process.

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* See, proposed Section 3002(b)(7)(B) of the Solid Waste Disposal Act.

Epoxy resins are converted into useful products by reaction with other materials called curing agents. Paints, finishes and other coatings and potting, molding and encapsulating compounds, sealants, adhesives and other products used in almost every industry and in many homes are made from epoxy resins. Adjustments in the basic curing reactions can be made through the use of chemicals which function as activators, promotors, accelerators, or catalysts. Reinforcing material, fillers, pigments and other additives are introduced to the unreacted resin to achieve desired characteristics and properties in the end products.

Because formulations are customized, it is rarely possible to use excess or leftover material in another batch. Warehousing small quantities, i.e., from one to fifty pounds, of leftover product for possible future use is not economical. However, for purposes of disposal the unreacted epoxy resins are subject to regulation as characteristic hazardous waste. Likewise, some initiators or catalysts would also be regulated hazardous waste.

Rather than disposing of the unreacted epoxy resin, formulators would prefer to react this leftover product with a curing agent (i.e., to carry out the same process the customer utilizes) to form an inert, nonhazardous plastic material.

Unfortunately, this option is not generally available. Under current law, the addition of the initiator or catalyst to the leftover epoxy resin is considered to be the treatment of a hazardous waste. EPA's regulations allow states to authorize small quantity generators to conduct such treatment without becoming a permitted treatment facility.

If the small quantity generator threshold were lowered significantly, formulators and our customers must either be qualified for interim status or secure a treatment facility permit from EPA in order to treat leftover epoxy resin. Mereco explored the possibility of qualifying as an interim status hazardous waste facility several years ago. However, the burdens involved in qualifying for and complying with the applicable regulations were far beyond the means of our company.

Most formulators, who, like Mereco, are small businesses, would therefore be required to ship limited quantities of leftover epoxy resin to off-site hazardous waste treatment, storage or disposal facilities, and would be precluded from using readily available technology to convert leftover epoxy resin into a biologically and chemically inert solid waste. The same would be true for our customers.

It would be very beneficial, therefore, for the Administrator to be able to maintain regulations authorizing the treatment of certain materials, such as leftover epoxy resins, without the need for a permit when the material may be rendered nonhazardous through a simple, readily available procedure. SPI strongly endorses Section 4 of S. 757 because we view it as providing the flexibility for EPA to establish such a regulation. The potential savings were this done would be significant for small businesses like mine.

I should note that manufacturers of reinforced plastics, i.e., fiberglass products, are confronted with a regulatory "Catch-22" similar to that which confronts the epoxy resin industry. A statement which addressed the matter from the perspective of the reinforced plastics industry was submitted by SPI to the House Subcommittee on Commerce, Transportation and Tourism on the proposed Hazardous Waste Control and Enforcement Act of 1983. A copy of that statement is being provided along with my testimony.

There is an alternative resolution to the problem that I have outlined and that is to amend the definition of solid waste in Section 1003(27) of the Solid Waste Disposal Act to exclude leftover materials. In both epoxy resin formulation and in the production of reinforced plastics, the leftover resins (epoxy and polyester) are not wastes because the resins are still suitable for their intended purposes. They are essentially leftover materials that with the addition of an initiator or catalyst could become the basis of a final product. However, as I explained, economics, custom additives, etc. may preclude the further use of the resin. The addition of the initiator or catalyst should not be considered as "treatment" of a hazardous waste. SPI realizes that the opportunity of our industries to render unusable leftover materials nonhazardous and suitable for disposal in landfills may be somewhat unique, but it does allow for a preferable alternative to the disposal of hazardous wastes. SPI will be happy to explore with the Subcommittee the possibility of developing an amendment that would alleviate undue regulatory burdens on our industry.

The second point I would like to discuss briefly is land disposal limitations. Section 5 of S. 757 directs the Administrator to promulgate regulations limiting the disposal of certain hazardous wastes in landfills. In developing these regulations, Section 5 directs the Administrator to consider "each hazardous waste...which contains significant concentrations of halogenated organic compounds."*

SPI recommends that the language in Section 5 read as follows:

> ...In promulgating such regulations, the Administrator shall consider each hazardous waste which is prohibited from land disposal by any State, which contains significant concentrations of non-polymeric halogenated organic compounds, or on which any State or interested persons petitions the Administrator for a prohibition under this subsection....

If such qualifying language is not included in Section 5, inappropriate regulatory burdens could result. Without the inclusion of the term non-polymeric, landfill disposal of polymeric halogenated organic compounds which are widely used as blood bags, food packaging material, non-stick cookware, and floor and wall coverings could be prohibited. As their use in food and medical items would indicate, polymeric substances do not pose substantial risks to human health and the environment, even though they are technically halogenated organic compounds.

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* See, proposed Section 3004(b) of the Solid Waste Disposal Act.

Furthermore, some polymers contain trace amounts of non-polymeric halogenated organic compounds which are potentially hazardous in high concentrations. However, their presence in polymers in trace levels does not pose a problem because these substances are trapped in the polymer matrix. Language that simply prohibits landfill disposal of substances which are or contain halogenated organic compounds could exclude some ordinary plastics which do not pose an environmental threat. The proposed language "hazardous waste which contains significant concentrations of non-polymeric halogenated organic compounds" would eliminate this problem.

In summary, SPI wants to stress the importance of flexibility in regulating small quantity generators of hazardous waste to assure that beneficial means of disposal are not precluded. In addition, SPI is concerned that the language covering restrictions on land disposal of hazardous waste not be so broad it could be interpreted to preclude the disposal in landfills of certain consumer products. We believe that the recommendations we have made are within the intent and purposes of the Resource Conservation and Recovery Act.

Statement of

THE SOCIETY OF THE PLASTICS INDUSTRY, INC.

On

THE HAZARDOUS WASTE CONTROL AND ENFORCEMENT ACT OF 1983

Submitted to

The Subcommittee on Commerce, Transportation and Tourism

United States House of Representatives

March 24, 1983

The Society of the Plastics Industry, Inc. (SPI or The Society) is pleased to submit this statement in connection with the Subcommittee's consideration of the Hazardous Waste Control and Enforcement Act of 1983. Since a bill had not been introduced in this Congress at the time this statement was prepared, these comments are premised on the assumption that the Act would be the same as H.R. 6307 which was approved by the House of Representatives on September 8, 1982.

SPI represents some 1,400 member companies and is the major national trade association of the plastics industry. Its membership represents over 95% of the production and about 75% of the sales of plastics materials in the United States.

Summary of Position

The Society fully supports the objectives of the Resource Conservation and Recovery Act (RCRA). The general handling, transportation and storage, treatment or disposal of hazardous waste must be conducted in a manner that minimizes the risks to human health and the environment. The realization of these objectives is in the interest of both the Nation and the plastics industry.

It is SPI's position that companies which generate hazardous waste must be provided sufficient latitude to handle such waste in the safest, most cost-effective manner consistent with RCRA's objectives. This is especially important for the many small and medium-sized companies that produce relatively small quantities of hazardous waste. The Society's concern with the Hazardous Waste Control and Enforcement Act of 1983 is that it may effectively preclude a significant segment of the plastics industry from conducting on-site treatment of hazardous waste in situations where it is clear that such treatment would pose less of a risk to human health and the environment than if the waste is transported to a permitted facility for treatment, storage or disposal.

Section 3 of H.R. 6307 from the 97th Congress would have amended Section 3001 of the Solid Waste Disposal Act in two significant respects. First, it would have established a statutory threshold of 100 kilograms (kg) per month for the hazardous waste small quantity generator exemption. Second, it would have imposed severe constraints on the Environmental Protection Agency with regard to its flexibility to regulate entities that generate between 100 and 1000 kg per month of hazardous waste under different standards than those applicable to large quantity generators.

The enactment of those requirements could preclude the safe, cost-effective treatment of hazardous waste that may now be conducted without a permit by generators of less than 1000 kg per month pursuant to Agency regulation and concurrence by the States. The Subcommittee is respectfully urged to provide the Agency and the States with the flexibility under the Hazardous Waste Control and Enforcement Act of 1983 to continue to authorize the on-site treatment of hazardous waste without the need for a treatment permit in appropriate situations. Substantial benefits would redound to the plastics industry and other industries, as well, if this approach is adopted.

The Need For Flexibility - An Example

The companies engaged in activities related to the production of reinforced plastics (widely identified as fiberglass products) constitute an important segment of the plastics industry. SPI's operating unit that serves the interests of these companies is the Reinforced Plastics/Composite Institute. The Institute is comprised of 312 companies which mold glass fiber reinforced plastics products, supply raw materials or equipment for production of such products, or purchase them for fabrication and assembly into finished goods such as boats, aircraft, and automobiles. Nationwide, there are approximately 3,000 companies engaged in manufacturing reinforced plastic products.

Numerous methods are used to manufacture reinforced plastics. The major processes include different types of contact (open) molding. Typically, a mixture of unsaturated polyester resin and styrene, a reactive diluent, (hereinafter referred to as "polyester resin") is applied with a reinforcing material (typically glass fibers) to a mold, die or form. Immediately prior to application, the fabricator will add an initiator to the polyester resin to trigger the polymerization reaction.*/ Polymerization transforms the resin into a rigid, high molecular weight material.

While all companies strive for total utilization of their basic raw materials, some polyester resin cannot be used. For example, pigments or special purpose additives may be blended into resins to impart specific physical characteristics to the finished article; a fabricator may have no use for leftover quantities of resin with those particular additives. Also, the flushing of equipment lines results in some unuseable polyester resin. Polyester resin satisfies the EPA criteria as a characteristic ignitable waste. See 40 C.F.R. §261.21. Accordingly, when a fabricator intends to discard polyester resin, it is a hazardous waste. See 40 C.F.R. §§261.2 and 261.3.

Several options are available to fabricators. The waste polyester resin could be shipped offsite to an authorized storage, treatment, or disposal facility. Disposal in authorized landfills is the most widely available option. An environmentally superior procedure available to manufacturers of reinforced plastics is to simply add an appropriate amount of initiator to the waste polyester resin. This triggers polymerization which transforms the waste into a stable, inert, nonhazardous solid. Under current law, the addition of the initiator to the waste polyester resin constitutes the treatment of a hazardous waste under Section 1004(34) of RCRA. Permits are generally required under Section 3005 of RCRA to treat hazardous waste.

This method of "treating" waste polyester resin involves the same substances, procedures, and chemical reactions as those utilized in the manufacture of reinforced plastic products. The only difference is that the polymerized waste polyester resin is simply allowed to solidify into an inert, nonhazardous block, rather than being combined with glass fiber and applied to a mold, die, or form.

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*/ A frequently used initiator is methyl ethyl ketone peroxide, (MEKP), a listed hazardous waste if discarded. See 40 C.F.R. §261.33(f). Initiators differ from catalysts in that initiators are consumed during the polymerization reaction and become a part of the polymer; catalysts facilitate reactions without being consumed. Common parlance in the RP/C industry is to use the term catalyst even though initiator is the correct term.

Many manufacturers of reinforced plastics generate between 100 and 1000 kg per month of waste polyester resin. Under the Agency's regulations, these entities qualify as small quantity generators and may be authorized by their respective states to conduct this type of treatment without having to obtain treatment permits. See 40 C.F.R. §261.5(g)(3)(iv). This option could have been foreclosed if Section 3 of H.R. 6307 had been enacted.

SPI must emphasize that it is not feasible nor reasonable to expect the small and medium-sized companies that manufacture reinforced plastics to become permitted hazardous waste treatment facilities. The regulatory and financial burdens associated with RCRA permits effectively eliminate this option. These companies are not in the business of treating hazardous waste generated by other entities. However, they are knowledgeable in the safe handling and use of polyester resin. We believe these companies should be allowed to draw on this expertise in treating unuseable quantities of polyester resin as long as the amount generated on a daily basis is small (e.g., less than 50 kg) and the "treatment" occurs promptly (e.g., within 24 hours).

There are numerous adverse effects to legislatively discouraging the on-site treatment of waste polyester resin by manufacturers of reinforced plastics. The volume of hazardous waste that will have to be accommodated in landfills is increased. The firms most experienced and skilled with respect to the handling of the substance and the use of safe work practices, i.e., the generators, are effectively precluded from treating the unuseable polyester resin produced in their operations. In essence, unnecessary and avoidable risks to human health and the environment associated with the offsite treatment, storage, and disposal are fostered.

Conclusion

SPI respectfully urges that the unduly restrictive limitations set forth in the small quantity generator provisions of H.R. 6307 not be included in the Hazardous Waste Control and Enforcement Act of 1983. The Agency and the States should possess sufficient flexibility under RCRA to authorize companies, such as manufacturers of reinforced plastics, to engage in the safe, effective on-site treatment of limited quantities of hazardous wastes without a permit, especially where such treatment consists of the same substances, procedures, and chemical reactions as those utilized in the generators' daily production.

Respectfully submitted,

THE SOCIETY OF THE
PLASTICS INDUSTRY, INC.

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TESTIMONY OF

BOB KUYKENDALL

MANAGER OF THE LAND POLLUTION CONTROL DIVISION
ILLINOIS ENVIRONMENTAL PROTECTION AGENCY

ON BEHALF OF THE
ASSOCIATION OF STATE AND TERRITORIAL
SOLID WASTE MANAGEMENT OFFICIALS
(ASTSWMO)

BEFORE THE
SUBCOMMITTEE ON ENVIRONMENTAL
POLLUTION

JUNE 9, 1983

Good morning, Mr. Chairman and Members of the Subcommittee. I am Robert Kuykendall, Chairman of the Federal/State Relations Task Force of the Association of State and Territorial Solid Waste Management Officials and I appreciate the opportunity to testify for the Association on amendments to the Resource Conservation and Recovery Act before you today. I am also the Manager of the Land Pollution Control Division for the Illinois Environmental Protection Agency.

In March of this year, the Association conducted a poll of its membership to determine recommendations for amending RCRA by State Officials who are responsible for the implementation of this comprehensive law. To develop Association positions, we established a Resource Conservation and Recovery Act Task Force to propose positions to our membership at large. This Task Force developed a questionnaire which I would like to submit for the Subcommittee's record. From the results of the survey, ASTSWMO composed a Position Paper which I have also included with my testimony based on a consensus of the State Officials responding to the questionnaire. In general, ASTSWMO supports the strengthening amendments included in S 757. However, our survey revealed that State Officials also support additional amendments to RCRA. Moreover, State Officials expressed interest in clarifying Congressional intent with report language as to the State/Federal role once States become authorized as the primary regulator of this Nation's solid wastes. I would like to review briefly ASTSWMO's recommendations.

The Association supports the National Governors Association's position that States must have the lead responsibility for actual development and implementation of waste control programs. NGA further recommends and ASTSWMO strongly concurs that the Act should provide that delegation will be approved for State programs which are equivalent in overall effect to the Federal program, without the necessity to show point-by-point equivalence. The interpretation by USEPA of Section 3006 of RCRA has proved to be a consistent sticking point for State authorization. Throughout Subtitle C of the Resource Conservation and Recovery Act, State involvement in development and implementation of the hazardous waste program is indicated. The experience of State programs, as well as the insight inherent in State perspectives, are vital factors in the successful implementation of the hazardous waste programs. Section 3006 provides the means for assuring that these factors are directly and expeditiously employed through State program administration. ASTSWMO supports the administration of Section 3006 so as to encourage each State to assume or to continue primary responsibility for program administration and to recognize and accommodate the various means by which States may choose to conduct their programs. As you know, certain states have been conducting hazardous waste permitting programs for some time and that those programs have evolved over the years into more sophisticated programs in response to issues and problems raised by practical administration of these programs. State Officials recommend that this realm

OF EXPERIENCE BE BROUGHT TO BEAR IN THE HAZARDOUS WASTE PROGRAM UNDER SUBTITLE C OF RCRA, RATHER THAN REMOVED FROM ITS CONSIDERATION. STATE PROGRAM REQUIREMENTS AND PROCEDURES WHICH ACHIEVE THE SAME RESULT INTENDED BY THE REQUIREMENTS OF SUBTITLE C SHOULD BE DEEMED "EQUIVALENT". A LEVEL OF ANALYSIS BY THE ADMINISTRATOR BEYOND MERELY REQUIRING ABSOLUTE IDENTICALITY OF PROVISIONS IS EVIDENCED IN SECTION 3006(A) WHICH REQUIRES THE ADMINISTRATOR OF EPA TO MAKE FINDINGS REGARDING THE STANDARDS FOR PROGRAM APPROVAL.

I WOULD LIKE TO SHARE WITH YOU SEVERAL EXAMPLES OF THE NEED FOR MORE FLEXIBILITY BY USEPA IN REVIEWING STATE LAWS AND REGULATIONS IN LIGHT OF EFFECT, NOT IDENTITY. OF PARTICULAR INTEREST TO THE SUBCOMMITTEE IS THE DIFFICULTY STATES WITH PROGRAMS MORE STRINGENT THAN THOSE OF THE FEDERAL PROGRAM ARE EXPERIENCING:

STATE PROCEDURES FOR PUBLIC PARTICIPATION PROVIDE AN EXAMPLE FROM EPA REGION 6 ABOUT THE PROBLEMS WITH THE USEPA'S INTERPRETATION OF EQUIVALENCY. PUBLIC COMMENT, IN THIS REGION 6 STATE, MUST BE SOLICITED AND CONSIDERED BEFORE A DRAFT PERMIT IS DEVELOPED. SUPPORTING INVOLVEMENT OF THE CITIZENRY AT THE EARLY STAGES OF PERMITTING, THE STATE CONSIDERS WAITING TO HEAR FROM THE PUBLIC ONCE A DRAFT PERMIT IS FINISHED TO PLACE THE PUBLIC IN AN UNACCEPTABLE RESPONSE MODE. MOREOVER, SUCH A PROCEDURE ALIGNS THE STATE WITH THE PERMIT APPLICANT. BY PRESENTING THE DRAFT PERMIT TO THE PUBLIC, THE STATE IS SEEN

AS HAVING ALREADY AGREED TO THE PERMIT. YET, EPA IN ITS EQUIVALENCY TUNNEL VISION HAS REFUSED TO CONSIDER THAT STATE'S APPROACH TO PUBLIC PARTICIPATION AS EQUIVALENT. EPA'S PROCEDURE RELIES ON PUBLIC REVIEW AFTER A DRAFT PERMIT IS SUBMITTED. THE STATE, IN ORDER TO OBTAIN AUTHORIZATION, HAS DECIDED THAT IT MUST CHANGE, HENCE WEAKEN, ITS PUBLIC PARTICIPATION APPROACH AND PLANS TO ADOPT EPA'S REGULATIONS BY REFERENCE.

A SECOND EXAMPLE COMES FROM EPA REGION 3. A STATE WITH REGULATIONS WHICH REQUIRE A COMPLETED MANIFEST HAS EXPERIENCED UNDUE DELAYS FOR CONSIDERATION OF ITS AUTHORIZATION APPLICATION. SINCE EPA'S REGULATIONS READ THAT THE MANIFEST MUST BE SIGNED, THE STATE'S REGULATIONS WERE UNACCEPTABLE. KEEP IN MIND THAT WITHIN THE BODY OF THE STATE'S REGULATIONS, IT IS QUITE CLEAR THAT COMPLETED MEANS SIGNED. YET THIS RECOMMENDED CHANGE BY THE AGENCY, WHICH WOULD HAVE NO IMPACT ON ENVIRONMENTAL OR PUBLIC HEALTH PROTECTION, WOULD HAVE ALLOWED THE STATE LEGISLATURE WHICH HOLDS VETO POWER OVER REGULATIONS TO BOTH REVIEW AND POTENTIALLY VETO OTHER FINELY CRAFTED HAZARDOUS WASTE REGULATIONS ALREADY CONFORMING TO USEPA'S REQUIREMENTS.

SINCE 1976, STATE EXPERIENCES WITH THE DELEGATION PROCESS HAVE SPANNED A WIDE SPECTRUM INVOLVING BOTH GOOD COMMUNICATIONS WITH USEPA REGIONAL OFFICES AND HEADQUARTERS AND QUITE ARBITRARY TREATMENT OF STATES BY THE AGENCY. THE ACT WHEN PASSED PROVIDED LEGISLATIVE LANGUAGE ON THE PROCESS FOR DELEGATION OF THE PROGRAM TO THE STATES; THE ASSOCIATION REQUESTS

YOUR SUBCOMMITTEE TO CLARIFY THE EQUIVALENCY LANGUAGE AS CONGRESS INTENDED IT. ASTSWMO BELIEVES THAT A DEFINITIONAL PROBLEM EXISTS IN REGARD TO HOW EPA IS CURRENTLY INTERPRETING THE EQUIVALENCY OF STATE PROGRAMS. EPA PROGRAM DELEGATIONS SHOULD FOCUS ON EQUIVALENT PERFORMANCE BY STATES RATHER THAN IDENTICAL PROGRAM FORM.

A SECOND POINT SUPPORTED BY THE STATE OFFICIALS IS THAT THE OVERSIGHT ROLE OF EPA, ONCE THE STATES OBTAIN FULL AUTHORIZATION, REQUIRES SOME STATUTORY CONSIDERATION. ASTSWMO WOULD LIKE TO WORK WITH THE SUBCOMMITTEE IN AN EFFORT TO DEFINE HOW THE AGENCY WILL REVIEW AND RULE ON STATE PROGRAMS AS THE FEDERAL PROGRAM CONTINUES TO EVOLVE. SUCH POLICY DIRECTION BY THE SUBCOMMITTEE WOULD SERVE TO CLARIFY THE FUTURE STATE/FEDERAL PARTNERSHIP ORIGINALLY DESCRIBED IN RCRA.

A THIRD ITEM OF INTEREST TO THE STATES IS THE NEED FOR A RE-EMPHASIS ON THE PROPER MANAGEMENT OF THE TOTAL SOLID WASTE STREAM, NOT JUST THE HAZARDOUS WASTE. IN 1976 STATE SOLID WASTE MANAGEMENT OFFICIALS JOINED WITH CONGRESS TO APPLAUD THE ENACTMENT OF THE RESOURCE CONSERVATION AND RECOVERY ACT. AT LAST, NATIONAL RECOGNITION OF A VERY SERIOUS AND GROWING SOLID AND HAZARDOUS WASTE PROBLEM WOULD ENABLE STATE SOLID WASTE MANAGEMENT AGENCIES TO BEGIN A LONG OVERDUE CORRECTIVE AND PREVENTATIVE PROGRAM. YET IN 1981 FUNDING WAS DELETED FOR SUBTITLE D ACTIVITIES. A BRIEF HISTORY OF

WHAT HAS HAPPENED IN THE RCRA PROGRAM SINCE SUBTITLE D FUNDING WAS ELIMINATED WILL ILLUSTRATE THE IMPORTANCE OF CONTINUED FEDERAL INTEREST IN THE ENTIRE SOLID WASTE STREAM.

ONE COMPONENT OF THE SUBTITLE D PROGRAM WAS A NATIONAL INVENTORY OF OPEN DUMPS. THIS WAS THE FIRST USE OF A NATIONAL STANDARD TO DETERMINE THE STATUS OF NON-HAZARDOUS WASTE LAND DISPOSAL SITES. SITES THAT MET THE NATIONAL MINIMUM STANDARD WERE TO BE CLASSIFIED AS SANITARY LANDFILLS. THOSE THAT FAILED WERE TO BE CLASSIFIED AS OPEN DUMPS AND CLOSED OR PLACED ON A SCHEDULE FOR UPGRADING. FUNDS WERE REMOVED FROM THE FEDERAL BUDGET FOR THIS PURPOSE IN FISCAL YEAR 1981. THE OPEN DUMP INVENTORY REMAINS FAR FROM COMPLETE. A SURVEY BY THE ASSOCIATION HAS SHOWN THAT ONLY 23 STATES HAVE COMPLETED THE INVENTORY. TWENTY-FOUR HAVE NOT AND OF THESE, 21 WILL NOT BE ABLE TO COMPLETE THE INVENTORY BECAUSE OF BUDGETARY CONSTRAINTS. THESE STATES HAVE REVERTED TO A REACTIVE PROGRAM OF IMMEDIATE PROBLEM SOLVING RATHER THAN A PROACTIVE PROGRAM OF COMPREHENSIVE WASTE MANAGEMENT AND PREVENTION. PLEASE REMEMBER THAT 65 OF THE ORIGINAL 115 INTERIM PRIORITY SUPERFUND SITES WERE SOLID WASTE LANDFILLS.

ASTSWMO SUPPORTS A REAUTHORIZATION OF AT LEAST $10 MILLION FOR SUBTITLE D ACTIVITIES SO THAT THE BREADTH OF THE ORIGINAL LEGISLATION IS RETAINED.

THE FOURTH AREA AND CERTAINLY ONE OF DIRECT INTEREST TO THE SUBCOMMITTEE IS THE ASSOCIATION'S POSITION ON VARIOUS PORTIONS

OF S 757. I WOULD LIKE TO HIGHLIGHT THOSE AREAS OF INTEREST TO THE STATE OFFICIALS FOR YOU.

1. SMALL QUANTITY GENERATORS

SINCE THE PROMULGATION OF THE INITIAL RCRA REGULATION IN 1980, MANY OF THE STATES WITH PREVIOUS EXPERIENCE IN HAZARDOUS WASTE REGULATION HAVE CONTINUED TO EXPRESS CONCERN THAT THE CURRENT 1000 KG EXEMPTION IS TOO GREAT. CONSEQUENTLY, THE ASSOCIATION STRONGLY ENDORSES S 757 PROVISIONS TO LOWER THE SMALL QUANTITY EXEMPTION FOR HAZARDOUS WASTE GENERATORS FROM 1000 KG/MO. TO 100 KG/MO., TO ADOPT UNIQUE REGULATIONS GOVERNING THIS NEW CLASS OF GENERATOR, AND TO EXTEND STORAGE OF HAZARDOUS WASTES UP TO 180 DAYS WITHOUT A PERMIT. HOWEVER IN CONJUNCTION WITH THE 180 DAY STORAGE EXEMPTION, WE RECOMMEND THAT ANY STORAGE GREATER THAN 20,000 KG BE REQUIRED TO OBTAIN A RCRA PERMIT. THIS PROVISION WOULD PROVIDE CONTROL OVER A FEW LARGE BUT SHORT TERM STORAGE/TRANSFER TYPE OPERATIONS THAT DO EXIST.

OTHER RECOMMENDATIONS OF THE ASSOCIATION CONCERNING THIS ISSUE INCLUDE:

- ALL SHIPMENTS OF HAZARDOUS WASTES FROM GENERATORS PRODUCING ABOVE THE 100 KG/MO. LIMIT SHOULD BE REQUIRED TO BE DELIVERED TO AN APPROVED HAZARDOUS WASTE FACILITY AND NOT TO A SANITARY LANDFILL MEETING

THE REQUIREMENTS OF SEC. 4004(A). CONSEQUENTLY, THOSE SHIPMENTS SHOULD BE REQUIRED TO USE THE CURRENT RCRA MANIFEST SYSTEM TO ENSURE THEIR DELIVERY TO SUCH SITES.

- ANY EPA STUDY TO DETERMINE REGULATIONS FROM SMALL QUANTITY GENERATORS MUST INVOLVE THE STATES. IT IS THE STATES WHO HAVE THE EXPERIENCE AND INFORMATION CONCERNING THIS ISSUE AND IT WILL BE THE STATES WHO WILL IMPLEMENT THESE REGULATIONS.

2. LAND DISPOSAL LIMITATIONS

IN GENERAL, THE ASSOCIATION WELCOMES S 757 PROVISIONS CONCERNING LAND DISPOSAL LIMITATIONS. SEVERAL STATES SUCH AS CALIFORNIA, NEW YORK, TEXAS AND ILLINOIS HAVE IN VARYING DEGREES BEEN PURSUING THE PROHIBITION OF SPECIFIED HAZARDOUS WASTES FROM LAND DISPOSAL FOR SOME TIME. USEPA NEEDS TO ASSUME ITS PROPER ROLE AND BRING CONSISTENCY THROUGH A NATIONAL APPROACH TO THIS ISSUE. HOWEVER, ANY LAND DISPOSAL LIMITATIONS SHOULD BE LINKED TO ALTERNATIVE TREATMENT , RECLAMATION, OR DISPOSAL METHODS THAT ARE "REASONABLY AVAILABLE" RATHER THAN "TECHNOLOGICALLY FEASIBLE", AS THE CURRENT BILL PROVIDES. "REASONABLY AVAILABLE" PRESUMES PRIOR CONSIDERATION OF PRIVATE SECTOR ECONOMICS AS WELL AS TEST LABORATORY CONCLUSIONS. IN THE REAL WORLD, THE WASTES HAVE GOT TO GO SOMEWHERE.

THE ASSOCIATION IS IN AGREEMENT WITH THE BILL'S CURRENT PROVISIONS THAT THE EXPANSION OF LANDFILLS OR SURFACE IMPOUNDMENTS WHICH ARE UNDER INTERIM STATUS SHOULD BE SUBJECT TO THE LINER AND LEACHATE COLLECTION SYSTEM REQUIREMENTS OF NEW FACILITIES. OF COURSE, THOSE STATES THAT HAVE RECEIVED RCRA PERMITTING AUTHORITY SHOULD HAVE THE FULL RESPONSIBILITY FOR THE IMPLEMENTATION OF ANY FACILITY EXPANSION REGULATIONS.

3. MANDATORY INSPECTIONS

S 757 PROVIDES FOR THE ESTABLISHMENT OF A SCHEDULE OF MANDATORY INSPECTIONS (NO LESS OFTEN THAN EVERY 2 YEARS) FOR EVERY HAZARDOUS WASTE FACILITY FOR WHICH A RCRA PERMIT IS REQUIRED. THE ASSOCIATION AGREES WITH THIS CONCEPT BUT WOULD STRONGLY OBJECT TO SUPPLEMENTING STATE INSPECTIONS BY THE PUBLIC FUNDING OF PRIVATE SECTOR INSPECTIONS AS SUGGESTED IN THE BILL. PRIVATE INSPECTIONS ARE NEITHER APPROPRIATE NOR NECESSARY TO CARRY OUT THE MANDATE OF THIS PUBLIC LAW. PROVIDED A STABLE SOURCE OF FUNDING IS GUARANTEED, THE STATES WOULD EAGERLY PERFORM ANY ADDITIONAL INSPECTIONS THROUGH "IN PLACE" SURVEILLANCE SYSTEM WHICH ARE STAFFED BY DEDICATED AND QUALIFIED PEOPLE.

4. THE BURNING AND BLENDING OF HAZARDOUS WASTES

THE ASSOCIATION AGREES THAT THE BURNING AND BLENDING OF HAZARDOUS WASTES NEEDS TO BE ADDRESSED AND IT IS IN AGREEMENT WITH THE PROVISIONS OF S 757 CONCERNING THIS MATTER. IT IS AN ISSUE WHICH SOME STATES HAVE ALREADY BEGUN ADDRESSING BUT WHICH IS IN NEED OF NATIONAL DIRECTION. WE SUPPORT THE REQUIREMENT TO REPORT THE BLENDING, BURNING AND MARKETING ACTIVITIES; THE DEVELOPMENT OF REGULATIONS CONTROLLING SUCH ACTIVITIES AS QUICKLY AS POSSIBLE, AND THE LABELING OF SUCH FUELS AS CONTAINING HAZARDOUS WASTES.

5. ANNUAL REPORTS

S 757 PROVISIONS CONCERNING THE FILING OF AN ANNUAL AND SUBSEQUENT BIENNUAL REPORTS ARE TOO LIMITED AND NEED TO BE EXPANDED. NEARLY 85% OF THE STATES CURRENTLY REQUIRE AN ANNUAL REPORT FROM GENERATORS, STORERS, TREATERS, AND DISPOSERS OF HAZARDOUS WASTES. THESE STATES WILL CONTINUE TO REQUIRE SUCH REPORTS IRRESPECTIVE OF THE FEDERAL DIRECTION BECAUSE THEY PROVIDE UP-TO-DATE AND CONCRETE INFORMATION IN AN AREA IN WHICH RELIABLE INFORMATION HAS BEEN PREVIOUSLY UNAVAILABLE. THIS INFORMATION ON AMOUNTS, TYPES, AND LOCATION OF WASTES WHICH ARE GENERATED, TREATED, STORED, OR DISPOSED ALLOWS EACH STATE TO DETERMINE ITS WASTE MANAGEMENT NEEDS AND TO ASSESS WHETHER OR NOT THESE NEEDS ARE

BEING MET. SUCH INFORMATION COULD ALSO BE IMMEASURABLY USEFUL IN UPDATING CONGRESS AND IN DETERMINING THE APPROPRIATE ALLOCATION OF FEDERAL DOLLARS TO INDIVIDUAL STATES FOR CONDUCTING HAZARDOUS WASTE PROGRAMS.

THE CURRENT WORDING OF S 757 SUGGESTS THAT THE INDIVIDUAL ANNUAL REPORTS FROM A STATE BE SUBMITTED TO USEPA FOR ITS USE IN PREPARING ITS ANNUAL REPORT TO CONGRESS. WE DOUBT THAT USEPA COULD MANAGE THOUSANDS OF REPORTS CONTAINING RAW INFORMATION FROM EACH STATE. INSTEAD THE ASSOCIATION RECOMMENDS THAT A DETAILED, STANDARDIZED SUMMARY OF EACH STATE'S ANNUAL REPORT WOULD BE MORE APPROPRIATE FOR THIS PURPOSE.

6. DELISTING OF HAZARDOUS WASTES

THE DELISTING OF HAZARDOUS WASTES BY USEPA SHOULD OCCUR ONLY WHEN CONCURRENCE HAS BEEN RECEIVED FROM THE STATE. BECAUSE THE STATES HAVE THE ABILITY TO BE STRICTER THAN THE FEDERAL PROGRAM, THIS RECOMMENDATION WOULD PREVENT BOTH THE FORMATION OF SEPARATE FEDERAL AND STATE HAZARDOUS WASTE LISTS AND CONFUSION AMONG THE REGULATED COMMUNITY.

I APPRECIATE THE OPPORTUNITY TO PRESENT THE ASSOCIATION'S POINT OF VIEW CONCERNING S 757 AND LOOK FORWARD TO EXPEDITIOUS ACTION ON RCRA REAUTHORIZATION. I WOULD BE PLEASED TO ANSWER ANY QUESTIONS AT THIS TIME.

Written Statement
# of the
NATIONAL ASSOCIATION OF ATTORNEYS GENERAL
Before the United States Senate

June 9, 1983

Presented by
BARBARA H. BRANDON
Assistant Counsel
for the
PENNSYLVANIA DEPARTMENT OF ENVIRONMENTAL RESOURCES

Statement
# of the
NATIONAL ASSOCIATION OF ATTORNEYS GENERAL

Before the United States Senate Committee on Public Works and the Environment

The National Association of Attorneys General (NAAG) urges the Committee and the Congress to approve two revisions to the Resource, Conservation and Recovery Act, (RCRA) both of which will improve the law enforcement tools available to the states.

First, RCRA should be amended to preserve the federal common law of nuisance. In light of the United States Supreme Court's decision construing the Clean Water Act in City of Milwaukee v. Illinois, 451 U.S. 304 (1981), RCRA's savings clause should be amended to avoid a similar interpretation of Section 7002(f). Thus Congress should expressly declare that such a right of action exists despite the "comprehensive" nature of the federal regulatory scheme. Therefore, Section 7002(f) should be amended to substitute the word "Act" for "section" and to say "state or federal common law" instead of simply "common law."

Second, Section 7003 of RCRA should be amended to authorize states to sue under its provisions. This section currently authorizes EPA to bring suit to enjoin activities which are creating an imminent hazard to health or to the environment. The section should be revised to allow states to bring such lawsuits. This issue is discussed in Part II of NAAG's statement.

I. CONGRESS SHOULD CLARIFY RCRA'S SAVINGS CLAUSE TO RETAIN THE FEDERAL COMMON LAW OF NUISANCE

The savings clause amendments which NAAG proposes would stop the confusion which has followed the Supreme Court's decision in City of Milwaukee v. Illinois, 451 U.S. 304 (1981). In that case, Illinois brought suit in the federal district court to force Milwaukee to reduce the amount of raw sewage it dumps into Lake Michigan. Both the District Court and the Seventh Circuit found that Milwaukee was creating an interstate nuisance in violation of the federal common law. The Supreme Court reversed overruling its earlier decision in the case at 406 U.S. 91 (1972). The Supreme Court held that where a permit has been granted pursuant to a federal environmental statute and that statute contains mechanisms for resolving interstate disputes, Congress intended that the federal common law of nuisance be preempted by the statute.

While the Milwaukee II holding should be limited to the narrow facts of that case, the Court's opinion does not delineate clearly the reach of its holding nor does it address the problematic implications of its holding for the other major federal environmental statutes. Indeed some have argued that the case abolishes the federal common law of nuisance entirely. NAAG does not construe the case so broadly nor does it believe that this would be a good result. Thus we would advocate an amendment clarifying the RCRA Savings Clause to prevent a similar result under RCRA.

If Milwaukee II is extended to other statutes and situations - and NAAG believes there is a great risk that it will be - the law will be affected in two negative ways. First, the federal courts will be precluded from developing important law in defining the relationship between the federal environmental statutes and the common law. Second, states will be left with no federal forum in which to adjudicate certain significant interstate disputes.

Because the opinion in Milwaukee II relied heavily on the Court's reading of Congressional intent in enacting the savings clause in the Clean Water Act, Section 505(e), 33 U.S.C. 1365(e), Congress may change the result under RCRA simply by amending the savings clause in Section 7003(f).[1] NAAG believes Congress should do so and thereby preserve the federal common law of interstate nuisance.

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[1] In City of Milwaukee the Supreme Court read the Clean Water Act to implicitly repeal the federal common law of nuisance. The Court did this in spite of the principle of law that repeals by implication are not favored. As the D.C. Circuit has phrased it, "...[a] statute will not be construed as taking away a common law right existing at the date of its enactment, unless that result is imperatively required; that is to say, unless it is found that the pre-existing right is so repugnant to the statute that the survival of such right would in effect deprive the subsequent statute of its efficacy... ." Sierra Pacific Power Co. v. Federal Power Commission, 223 F. 2d 605, 607 (D.C. Cir. 1955) aff'd 350 U.S. 348 (1956). And see, Texas & Pacific Railway v. Abilene Cotton Oil Co., 204 U.S. 426, 437 (1907); Federal Power Commission v. Federal Power Commission v. Niagra Mohawk Power Corp., 347 U.S. 239, 252-53 (1954).

A. Milwaukee II Restricts The Federal Courts' Role as Interpreters of The Federal Environmental Act

Milwaukee II appears to have removed the federal courts from their preeminent role in defining the relationship between the federal environmental statutes and the common law. As the Supreme Court decision in Milwaukee I recognized, the federal common law of nuisance serves as an important interstitial remedy where EPA has not yet addressed the specifics of an environmental problem.

Neither the state nor federal environmental statutes address all the possible pollution problems that could fall within their ambit. Where there are gaps in the regulatory scheme under an environmental statute, the federal common law of nuisance provides a means of resolving conflicts and weighing the competing interests of litigants. State courts will of course continue to address such concerns because the state common law was left undisturbed by Milwaukee II.[2] But, the Milwaukee II is extended to

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[2] The Court read the Clean Water Act savings clause to specifically preserve state common law rights. 451 U.S. at 316. Congress may preempt state law only where it is necessary to avoid conflicts between state and federal law. City of Philadelphia v. New Jersey, 437 U.S. 617, 621, n. 4 (1978). There is no conflict between the Clean Water Act and the states' use of common law. There is therefore no basis for preemption. Indeed, the state's common law enforcement powers are so basic to their governmental function that a move to preempt them would test the limits of the Tenth Amendment restrictions on federal authority. See National League of Cities v. Usery, 426 U.S. 833 (1976).

RCRA, federal courts may only address these issues when diversity or pendent jurisdiction brings a state common law nuisance claim before them.

It should be emphasized that the scope of this remedy is a narrow one. The common law serves to give an injured party who may have been neglected by the statute or by an overburdened enforcing agency a form of redress. There is no good argument for removing this opportunity for remedy. The basic principle of the common law of public nuisance is that one is liable for damages caused to another where the benefit of one's action does not outweigh the harm. This is a sound principle. Where it can be shown that pollution has injured someone it should not be a sufficient defense to claim that the generalized standards of a statute have been complied with. Polluters should properly be held to a standard that holds them liable for unnecessarily injuring others and not simply for violating the statutory law. The number of cases under the common law will inevitably be small but where they are meritorious there is no basis for abolishing this cause of action.

Moreover Congress has a substantial and legitimate interest in ensuring that the federal judiciary properly interpretates the limits of the federal environmental statutes. This is certainly true in many other areas of federal interest where the federal common law continues to play a role within a statutory context. In the areas of federal procedure, foreign affairs, government paper and bonds, antitrust law, water apportionment among states, labor contracts, patent claims, postal law, securities regulation, railroad law, taxation, government land and tort claims and federal maritime law, the federal courts are developing federal common law. As the Supreme Court has state:

> ... It has always been the duty of the common-law court to perceive the impact of major legislative innovations and to interpret the new legislative policies with the inherited body of common-law principles -- many of them deriving from earlier legislative exertions.
>
> Moragne v. States Marine Lines, 398 U.S. 375, 392 (1970).

The Supreme Court's conclusion in Moragne applies equally to the environmental area. NAAG believes that the contribution federal courts were making to this body of law before Milwaukee II was a valuable one and that it should continue under RCRA. The federal courts are most expert at interpreting the federal environmental statutes and they should continue to lead in this area.

B. Milwaukee II Restricts The States' Access To the Federal Courts.

Environmental conflicts between states are rare, but when they do occur, states should have recourse to the federal courts to resolve them. Indeed, the federal common law of interstate nuisance was developed to address just this problem.[3] Before Milwaukee II, it was clear that a state government had a federal forum in which to press a complaint about pollution generated outside the state's borders. Now that forum appears to be unavailable to a state.

By the early 1970's, the Supreme Court no longer was taking original jurisdiction in most interstate disputes.[4] As a result, states utilized federal question jurisdiction to resolve interstate nuisance claims as Illinois did in pursuing its action against the City of Milwaukee. But Milwaukee II has apparently removed the federal common law of nuisance as a basis for federal question jurisdiction. Thus because states have never been considered "citizens" for purposes of diversity jurisdiction states are left with no federal forum in which to pursue an interstate nuisance claim.[5] Thus ironically while a state may have a nuisance claim under state law against a pollutor in another state, it has less access to a federal forum to litigate this claim than a private citizen with a contract claim.

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[3] The federal government has also used the federal common law of nuisance to protect navigable waterways. See, e.g., United States v. Ira Bushey & Sons, Inc., 346 F. Supp. 145, 363 F. Supp. 110, (D. Vt. 1973), aff'd 487 F. 2d 1393 (2nd Cir. 1973), cert. denied 417 U.S. 976 (1974); United States v. United States Steel Corporation, 356 F. Supp. 556 (N.D. Ill, 1973). In 1980 EPA itself actively supported the common law remedy in City of Milwaukee, through the participation of the United States as amicus in support of Illinois. In the past EPA has brought and continues to press federal common law nuisance claims. E.g., United States v. Outboard Marine Corp., 12 ERC 1348 (N.D. Ill. 1978); United States v. Hooker Chemicals & Plastics Corp., et al., Civil Actions Nos. 79-987, 79-988, 79-989 and 79-990 (W.D.N.Y.)

[4] State of Washington, et al. v. General Motors Corp., et al., 406 U.S. 109 (1972).

The availability of a federal forum in interstate disputes is basic to the federal system. In Milwaukee I, the Supreme Court held that a federal common law of nuisance must exist to redress an affront to a state's physical integrity which is caused by a source in a neighboring state. The Court referred to Missouri v. Illinois, 200 U.S. 496 (1906), where Justice Oliver Wendell Holmes recognized this basic requirement of federalism. Holmes reasoned that a sovereign which was not a member of the Union might go to war with a neighbor to end a nuisance. The states, in forming the Union, relinquished this prerogative in exchange for a federal judicial forum. Missouri v. Illinois, 180 U.S. 208, 220-21 (1965). Accord, Georgia v. Tennessee Cooper Co., 206 U.S. 230 (1907); Kansas v. Colorado, 206 U.S. 46, 98 (1907); New York v. New Jersey, 256 U.S. 296, 301-2 (1921); Nebraska v. Wyoming, 325 U.S. 589 (1945); State of Texas v. Pankey, 441 F. 2d 236 (10th Cir. 1971).

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[5] Postal Telegraph Cable Co. v. Alabama, 155 U.S. 482, 487 (1894).

The Supreme Court has also recognized that relegating a state to the neighboring state's courts does not meet the Constitution's requirements. Wisconsin v. Pelican Ins. Co., 127 U.S. 265, 289 (1888). Yet, after Milwaukee II, the state governments are relegated to the state court system to settle interstate, nonstatutory environmental disputes. The Milwaukee II decision thus undermines a basic principle of federalism.

C. The Federal Common Law of Nuisance Is A Necessary Part Of The Environmental Law System

What role does the common law of public nuisance play in the environmental legal area? Usually a nuisance case is brought within a state, under state law. A polluter must be shown to be tortiously causing a local public health problem.[6] If a statutory scheme exists it may not yet proscribe the defendant's conduct because the statute was only recently enacted, or because its reach is not broad enough to address the particular problem, or more commonly because the agency implementing the Act may be too overburdened to address the problem. When such a regulatory gap occurs involving pollutional discharges across state lines, there certainly is a role for the federal common law of nuisance to play in resolving the conflict.

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[6] Nuisance is a field of tort liability, rather than a type of conduct. A nuisance is an effect, caused by negligent or other tortious behavior. Before a court will declare that a nuisance exists, it will conduct the same rigorous fact finding and legal proceedings as apply in tort cases generally. The underlying question in a public nuisance case is whether an unreasonable interference with public rights is taking place.

For example, New York recently filed a complaint against a company which runs a large metals and scrap smelter in New Jersey, just 100 yards upwind from Staten Island.[7] The smelter discharges numerous toxic chemicals, only some of which are regulated by EPA. It also causes severe odor problems in the residential communities of Staten Island. Throughout the 1970's the State of New Jersey threatened to prosecute the company many times, but failed to do so. Since most of the company's pollution falls in New York, New York has a special interest in abating this problem. Yet New York has no jurisdiction over the company, and no statute addresses many of the pollutants involved. NAAG submits that only a federal court can adequately address this situation.

Even if a statute does address the problem and a permit for an activity has been granted, a public health problem may still exist and the common law may appropriately be applied. Through the discharger's negligence or because of inadequacies in the agency's prior review, the regulatory scheme may sometimes not be enough.

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[7] New York's present lawsuit is in federal court, because there are also federal Clean Air Act claims against this company. If there were not, New York would probably be forced to take its nuisance claim into New Jersey courts or allow the company to continue discharging odorous and harmful pollutants into Staten Island.

Village of Wilsonville v. *SCA Services, Inc*. (1981) 86 Il. 2d 1, 426 NE 2d 824 is a good example of this kind of case. There the state environmental agency had granted permits to SCA to develop a site for a hazardous waste landfill. When the villagers became aware of the fact that the permits had been granted, they pointed out that the landfill site was located above an abandoned mine shaft and argued that this would cause subsidence of the containment area and consequent discharge of chemicals into the groundwater used as a drinking water source. The environmental agency had not considered the location of the mine shaft in granting the permits. The Supreme Court of Illinois decided in favor of the plaintiffs. Later, the plaintiffs were proven to be right: the site began to leak and was closed down.[8]

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[8] Other state courts have reached similar conclusions. A 1975 survey of state case law indicated that numerous states' courts have held that injunctive relief from pollution which is found to be a nuisance is available, in spite of an active administrative agency operating in the subject area. The cases hold that the state legislatures intended to establish administrative environmental controls as a supplement of existing law; some also hold that the existence of anuisance is a question of law which an administrative agency has no authority to decide. The states included in that survey were California, Delaware, Wisconsin, Pennslvania, Georgia, New York, Florida and Illinois. See *People* v. *Los Angeles* (1958) 160 Cal. App. 2d 494, 325 P 2d 639; *Pottock* v. *Continental Can Co.* (1965) 42 Del. Ch. 296, 210 A 2d 295; *State* v. *Dairyland Power Cooperative* (1971) 52 Wis. 2d 45, 187 NW 2d 878; *Brookhaven* v. *American Rendering, Inc.* (1969)484 Pa 290, 256 A 2d 626; *J.D. Jewell, Inc.* v. *Hancock* (1970) 226 Ga. 480, 175 SE 2d 847; *State* v. *Huntington* (1971) 67 Misc. 2d 981; *State ex rel. Shevin* v. *Tampa Electric Co.* (1974, Fla. App.) 291 So 2d 15. Also see *Village of Wilsonville* v. *SCA Services, Inc*., (1981) 86 Ill. 2d 1, 426 NE 2d 824.

Surely Congress does not want an environmental scheme in which negligence can be licensed, regardless of the human costs. Wilsonville exposes the frailty of arguments against allowing common law remedies. The claim that the common law interferes with the "efficient operation of the regulatory scheme" and "upsets the reasonable expectations" of industrial enterprises obscures the real issue that regulatory authorities are often overburdened to address each problem fully. Moreover, all a company's conduct must do is meet the common law rule of reason. This acts as a fail safe mechanism to insulate companies from undue fears as to the scope of their common law liability. They are at risk only if a Court finds their conduct to be unreasonable. Under such limited circumstances it makes no sense to remove this remedy.

II. RCRA SHOULD PROVIDE FOR STATE SUITS AND INTERVENTION IN IMMINENT HAZARD CASES

NAAG submits that Section 7003 of RCRA should also be amended to allow states to bring suit to prevent imminent hazards from toxic wastes. Currently the law only provides that the United States may bring such actions. This narrow limitation is unnecessary and counterproductive, given the present toxic waste crisis in this county. NAAG believes that Congress should broaden the ambit of Section 7003 beyond federal plaintiffs to include the states.

Because the present law enforcement burden in the toxic waste area is so great, there is simply no basis on which to maintain that the federal government doesn't need more help. While the state governments are doing what they can to address these problems, the legal tools available to some states are limited. NAAG believes that authority to sue under Section 7003 of RCRA would be a very significant addition to the legal tools that states now have.

CONCLUSION

The RCRA setting is a particularly appropriate one for continued use of federal common law in appropriate circumstances and for expanded state and citizen standing to sue in imminent hazard cases. RCRA establishes a supplementary scheme of minimum controls which function within a broader system of laws.* It establishes a working partnership between the national and state governments. The states continue to bear the greatest part of the law enforcement burden on public health matters, including disposal of wastes. For this reason, RCRA specifically encourages states to make their own decisions on how to regulate wastes. 33 U.S.C. § 1370.

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*Local zoning and sanitation ordinances, state health, environmental, commercial and labor codes, state common law and equity, and federal law all affect the same industries which RCRA regulates.

In some circumstances the federal common law of nuisance is a valuable regulatory tool for states. Congress need not be concerned that judge-made law will conflict with statutory law. Courts have been slow to contradict the administrative agencies charged with implementing federal statutes. E.g., New England Legal Foundation v. Costle, 475 F. Supp. 425 (D. Conn. 1979). A catalogue of the few federal common law nuisance cases of the 1970's would show that judges defer to the expertise of administrative agencies. The common law rule of reason has operated to protect property and health for hundred of years. RCRA's savings cause is intended to make sure that the Act does not interfere with this existing law, which serves many different purposes. Congress should amend the savings clause to clearly preserve the federal common law of nuisance.

Citizens suits and citizen intervention as of right, in imminent hazard cases, should also be made a part of RCRA's enforcement scheme, as they have been in the water and air regulation schemes. Section 7003 of RCRA could be a more significant tool for improving water quality. Congress should amend it to provide states and citizens full opportunities to use the imminent hazard provisions of RCRA.

TESTIMONY OF
RICHARD P. FAHEY

My name is Richard P. Fahey. I am an attorney from Columbus, Ohio. For the past seven years in my private practice I have had occasion to represent local governments, citizen groups and business in matters involving the environment, and more particularly in problems of Hazardous Wastes. Prior to entering private practice in 1976 I served as an Assistant Attorney General for the State of Ohio handling litigation of environmental and natural resources issues.

It has also been my pleasure for the past 7 years to serve as a Professor of law at Capital University Law School where I teach courses in Environmental Law and Natural Resources Law. I appear here today on my own behalf.

I am tempted to say I appear here today as a concerned environmentalist, however, I am not sure that would be an entirely accurate representation on my part. Having represented government, business as well as citizens' groups I'm afraid I can not come up with a handy label for the perspective I attempt to bring to these committee hearings.

What I am sure of is that since the enactment of the Resource Conservation and Recovery Act of 1976, I have been involved in attempting to fathom the impact of that law on the private citizens, local governments and business in Ohio. My perspective, then, is from the problematic "receiving end" of the policy decisions that this honorable body makes.

From that perspective, I wish to address the changes under consideration by you to the Resource Conservation and Recovery Act citizen suit provisions. More particularily those proposed provisions which seek to confirm or expand rights of "persons" (including within that definition state and local governments as well as private citizens) to seek judicial relief when they believe significant harm is or may be caused by the handling, treating, storing and disposing of hazardous waste.

I would like to share with you an incident in Ohio, which serves to illustrate the need for enacting the changes under consideration to the citizen suit provision. In the Fall of 1978, I was contacted by a group of several hundred residents of the small community of Deerfield, located in Northeast Ohio.

In late 1972 a one-man corporation known as Summit National Disposal Services purchased an 11-acre site in Deerfield and began to operate on the site as a liquid waste incinerator. Early operations were on a relatively small scale and not much attention was paid to the facility by residents or governmental authorities.

In the mid-seventies as more attention was being directed to the nation's hazardous waste disposal problems, a market was developed for this company's services. At about the time of enactment of the Resource Conservation and Recovery Act, many manufacturers in Ohio, Pennsylvania, Michigan began looking for off-site facilities to dispose of their hazardous waste. Summit then began to accumulate waste material on the site.

During this time an inspector for the State Division of Surface mining observed the accumulation of wastes, and believing there was a violation of the State's open dump laws notified the State Environmental Protection Agency. However, no action was undertaken with regard to the site. At that time, Ohio had no hazardous waste laws, only an open dumping law which provided for maximum penalty of $100.00 for every day of violation -- a minor misdemeanor.

As the activity at the site increased, residents became more and more alarmed by what they saw and began to fear for their health and safety. Attempts by the residents to enlist public officials to take action to halt to activities at the site were to no avail. All the time more hazardous waste was being placed on the site.

When the residents' group contacted me we proceeded to file what in Ohio is known as a verified complaint. Ohio has no citizen suit provision of any kind, rather a verified complaint is filed with the State Director of Environmental Protection and he investigates the allegations and takes such action as he deems appropriate. In 1979, the site was ordered closed. The one-man corporation went bankrupt, but not before transferring the land to another individual.

During the period of its operation the firm received approximately 35,000 drums and 4,500 gallons of waste, including waste oils, plating sludges, acids, phenals, resins, flammable solvents, chlorinated solvents, pesticide waste cyanides, various polymers and lab packs from about 50 generators.

When the site was closed in 1979, there were some 16,000 drums, many corroding, and 13,000 gallons of bulk waste in 13 storage tanks. There was also a large open concrete block tank containing a 300,000 gallon multilayered mixture of polymerized solids and liquid wastes which contained PCB, benzene, chlorobenzene, cyclodexane, etheylbenzene and napthalene. One to two acres of soil was contaminated when rainfall caused the "polymer pit" to overflow resulting in contamination of a drainage ditch that runs into the Berlin Reservoir, which serves the City of Youngstown.

Between February, 1980 and January 16, 1981, the State spent $788,000.00 from an emergency appropriation to secure the site. The entire site was fenced and a security firm was hired. The site was diked, a french drain was installed, and drum and tank contents were sampled. Some drummed and bulk waste has been removed. The USEPA has used about $180,000.00 in super funds to remove three tanks of highly toxic C-56 and soil that had been contaminated by leaks from those tanks.

In November, 1981, the State of Ohio completed negotiations on an agreement with seven generators to fund a $2.5 million clean up at the site. In addition to the generator clean up efforts, over $900,000.00 in out-of-court settlements with generators of the waste at Summit National has been collected for future remedial work at the site. The surface waste clean up was completed in June, 1982. All solidified wastes were placed in a secure landfill and liquid wastes were incinerated or treated at licensed facilities. Additional super fund moneys are being sought to undertake subsurface investigations and to complete clean up and closure.

What are the lessons to be learned from Deerfield? During the period when most of the hazardous wastes were placed on the site RCRA was enacted, but there were no regulations until May 19, 1980. Consequently, the citizen suit provision was virtually useless in this situation. The option of bringing an action against the Administrator to issue a permit, standard, regulation, condition, requirement or order is ludicrous. What was necessary was a means whereby persons could enlist the powers of the judiciary to halt the accumulation of hazardous wastes which were clearly presenting an imminent and substantial endangerment to human health and the environment.

Instead, these citizens, representing a cross-section of mid-America's Middle Americans were reduced to engaging in picketing of the facility owner's residence and series of confrontations with their public officials. All the while, hazardous waste continued to be accumulated on the site.

Who looses in this type of situation? -- We all do. The private citizens are exposed to chemical wastes which endangers their health and property. Without an efficient and effective means of redress people are left to their own devices to effect a resolution of their grievances. Industry and the Government are made to pay the high monetary costs associated with trying to undue the harm wrought.

Of course, since the Deerfield episode in the late 70's the USEPA has undertaken to regulate hazardous waste from "cradle to grave" as it was mandated to do by the enactment of RCRA in 1976. Nevertheless, the proposed changes to the citizen suit provision are as necessary today as they were in 1979 for essentially the same reasons.

I have, up until this point intentionally avoided speculating about what the factors were which lead the State and Federal officials to inaction in the Deerfield episode. I do not believe it was any malicious or intentional behavior that lead to this situation.

Deerfield was not the only environmental problem confronting Environmental Protection Agency officials in the State of Ohio at that time. What was perceived as a disaster by the local residents is but one of many problems requiring an allocation of precious enforcement resources. There is quite simply, not enough in the way of public enforcement resources available, nor is it realistic to assume there ever will be. Officials must prioritize their enforcement targets, and being human, sometimes there will be mistakes. In instances where imminent and substantial damages to health or environment exist, citizen suits should be authorized.

There is also the very real possibility that officials charged with enforcing the hazardous waste laws may choose to ignore violations, or proceed to take enforcement action in a less than timely manner. Again, citizen suits should be authorized in such instances.

Too often we forget that as elaborate as the regulatory system might be to track the "cradle to grave" course of hazardous wastes, participants must voluntarily place themselves in the system. The proposed changes to the citizen suit provision would, by making direct legal recourse available to all persons have a deterrent effect. Quite simply, the chances of getting caught violating the hazardous waste laws would be increased.

The response one expects to hear to these arguments is that such changes to the citizen suit provision will result in a "flood gate" of frivolous litigation. Several practical considerations mitigate against such a result. First, the type of litigation we are discussing is extremely costly for all parties not just the potential violator. Secondly, the Courts, and their Rules of Procedure, possess a number of mechanisms which allow for the early disposition of frivolous lawsuits. Third, the Courts in exercising their authority over the awarding an attorney's fees provide a strong economic disincentive to the commencement of frivolous actions.

What the proposed changes in the citizen suit provision do provide is a check on the Administrator's enforcement program, and assure that the policy of this legislative body is carried out. To those in the regulated community there is further assurance that by their voluntary compliance with RCRA's requirements they are not being placed at a competitive disadvantage because of laxed enforcement procedures. Citizens can rest assured that a timely and viable means to redress their grievances through the judicial system is provided them. Such developments can only strengthen the effectiveness of the hazardous waste program, and facilitate the trust and confidence of the genearl citizenery in their government's concern for their health and the protection of the environment.

cibo
COUNCIL OF INDUSTRIAL BOILER OWNERS

STATEMENT OF
ROWAN PERKINS ON BEHALF OF
THE COUNCIL OF INDUSTRIAL BOILER OWNERS
BEFORE THE
SUBCOMMITTEE ON ENVIRONMENTAL POLLUTION
COMMITTEE ON ENVIRONMENTAL AND PUBLIC WORKS
OF THE UNITED STATES SENATE

11222 Silverleaf Drive, Fairfax Station, Virginia 22039 • (703) 250-9042

Thank you. My name is Rowan Perkins. I am a Senior Consultant in the Power Group of the Engineering Department of E. I. duPont. I appreciate the opportunity to testify before the Subcommittee today on behalf of the Council of Industrial Boiler Owners (CIBO) regarding S. 757, amending the Resource Conservation and Recovery Act (RCRA). CIBO is a broadbased association of industrial boiler operators and related equipment manufacturers, representing sixteen major industries. CIBO was formed in 1978 to promote the development and adoption of coherent and rational energy and environmental policies relating to industrial steam generation. CIBO's expertise is in the efficient operation and maintenance of industrial boilers which are intended to provide reliable steam supply for industrial processes.

CIBO's testimony will concentrate on section 7 of S. 757, which would require EPA to address the current regulatory exemption for the burning of hazardous wastes for energy recovery. Under current law, industrial boiler operators are able to burn spent materials and by-products generated in their plants' industrial processes to recover legitimate fuel value in their boilers. Current law also allows so-called fuel blenders to collect hazardous wastes and waste oils and, often after minimal reprocessing, sell them as fuels to unknowing boiler operators, frequently in apartment buildings, schools, hospitals and the like. These facilities, usually located in densely-populated areas, generally have smaller, less efficient, and far less well maintained boilers than their industrial counterparts.

CIBO recognizes that the operations of these fuel blenders and their customers have raised concerns in some quarters, and that section 7 responds to these concerns. However, we believe that the operations of industrial boilers do not produce the kinds of potential hazards at which this provision is directed. Therefore, we believe that section 7 should be modified to avoid hasty regulation of industrial boilers, which action we believe would be in the public interest.

It should be recognized that EPA already has considerable authority to regulate boilers under the Clean Air Act and is presently conducting tests on the waste destruction efficiency of various boilers. Furthermore, although EPA has exempted the burning of hazardous waste in boilers for energy recovery from its RCRA regulations, EPA has, pursuant to a recent enforcement initiative, narrowed this exemption so as to apply only to the burning of fuel-like wastes having a heat value at least as great as wood or subbituminous coal. Moreover, EPA has recently announced that it is now developing regulatory proposals to further control blenders and certain boilers burning wastes and waste-blended fuels. In light of these developments, it is our view that section 7 is overbroad.

CIBO is concerned that enactment of section 7 could be construed by EPA as a mandate to impose burdensome regulations over all boilers burning hazardous wastes as fuels, without thoughtful consideration of the energy, environmental, or economic consequences of such regulation. Yet there are several important considerations which, CIBO believes, strongly argue against imposing additional, new burdens by regulating industrial boilers:

1. Industrial boilers burning hazardous wastes have not been shown to present environmental problems.

The need to regulate industrial boilers burning hazardous waste "to protect human health and the environment" has not been demonstrated. On the contrary, it is our understanding that recent EPA studies have shown that boilers achieve a very high efficiency in burning fuel-like wastes. Industrial boilers typically burn materials of high energy content which are a relatively small portion of the total industrial fuel consumption. In contrast, hazardous waste incinerators may be burning larger concentrations of more hazardous and difficult-to-burn material. Unlike many non-industrial boilers, industrial boilers are highly efficient, professionally operated and maintained, and usually located in industrial centers away from residential areas.

Significantly, industrial boilers are conspicuously absent from the list of "damage incidents" associated with the reuse and recycling of hazardous waste which EPA published in connection with a proposed rulemaking on April 4, 1983. Of the 68 damage incidents listed, only one, number 41, appears to involve industrial boilers and it is unclear whether the problems associated with this incident arise from burning, storage, or land-spreading of hazardous waste. This is certainly insufficient justification for comprehensive regulation of industrial boilers.

Because industrial boilers must provide a steady and reliable source of steam, they are equipped with sophisticated systems of controls to maximize their combustion efficiency, are attended while in operation, and are designed to produce the best possible combustion characteristics. Boiler operators closely monitor emissions from boilers to ensure efficient and complete combustion of fuel. This then ensures maximum waste destruction. Industrial boiler operators do not burn materials that damage the equipment or adversely effect their efficiency, such as heavy metal bearing materials or corrosive materials. Incinerators, in contrast, do not have commercial incentives for efficient heat output, and moreover burn a far wider range of potentially damaging materials.

2. The burning of wastes in industrial boilers represents an increasingly important alternative source of energy for the generation of steam.

Because many industrial wastes have energy values equivalent to fuel oil, industrial boiler owners are increasingly making use of such wastes in their boilers as an alternative fuel source, rather than having them transported offsite for disposal. This practice obviously furthers national energy policy goals, for it both conserves our nation's finite supply of conventional fuels and decreases our dependence on foreign energy sources. EPA estimates that hazardous wastes burned in boilers are 20 million metric tons, which could be roughly equivalent to 57 million barrels of oil per year. By imposing additional costs and equipment demands on industrial boiler owners, RCRA regulation of boilers would discourage this emerging practice, and would frustrate this important energy saving.

3. The on-site burning of wastes in industrial boilers is a preferred waste disposal practice.

The on-site burning of wastes as fuel by those who have generated the wastes, know their contents, and know how to handle them is good environmental policy as well as good energy policy and should be encouraged. On-site destruction provides closer control of the wastes. In addition, on-site destruction lowers the volume of wastes traveling on our nation's highways and reduces the demand for off-site disposal.

4. Regulation of industrial boilers could produce negative health and environmental consequences.

Rather than produce net health and environmental benefits, regulation of industrial boilers could actually have several adverse effects.

Regulation of boilers would clearly discourage the burning of waste in boilers as fuel. This would mean more storage, more transport, and more offsite disposal of hazardous waste. Increases in these practices may well mean greater risks to the public.

In addition, boiler regulations would result in increased reliance on coal and oil. Because many of the wastes that are burned are low in nitrogen and sulfur, this could mean more SO_2 and NOx emissions.

Conclusion

CIBO believes that these considerations -- namely, the importance of high energy content wastes as an alternative fuel, the high burning efficiency of existing industrial boilers, the public interest in burning as a waste disposal method, and the lack of evidence that the burning of wastes in boilers represents an environmental or health problem -- strongly counsel against additional regulations of industrial boilers burning hazadous waste. Accordingly, CIBO urges that section 7 be revised to reflect these considerations.

However, if the Subcommittee believes that some additional inquiry regarding the burning of fuel-like wastes in industrial boilers is necessary, CIBO would suggest that Congress expressly require EPA to conduct an investigation, and report to Congress within 12 months of enactment, assessing:

> (1) the impact of various regulatory options on the use of waste as an alternative energy source; and
>
> (2) the risks posed by current industrial boiler practices and the expected risk reductions of various regulatory options.

CIBO believes that these requirements would promote more responsive and rational policy toward boiler operations by ensuring careful consideration and balancing of competing national energy, environmental, and economic goals.

TESTIMONY

OF

MORTON L. MULLINS

My name is Morton Mullins and I am Manager of Environmental Engineering for Monsanto Company headquartered in St. Louis, Missouri. I am appearing today on behalf of the Chemical Manufacturers Association (CMA), where I serve as Chairman of the RCRA Task Group. CMA is a non-profit trade association whose member companies account for over 90% of the basic industrial chemicals produced in this country.

We appreciate the opportunity to express our position relative to reauthorization and amendment of the Resource Conservation and Recovery Act. We have closely followed debate on this subject in both Houses of Congress over the last year. The events of the past few months have raised so many questions, justified or not, as to the integrity of our nation's Hazardous Waste Management Program that we join Congress in the conclusion that we all need to act to restore public confidence. Congress must provide clear authority and policy direction to EPA. EPA in turn must swiftly implement this policy via necessary technical studies, regulations and firm enforcement. Finally, all of us in the regulated community must take the initiative to not only comply with regulations but to take the initiative, applying good science to develop waste management practices that are protective of the environment while minimizing the impact on the consumer who will ultimately pay the cost.

We must all recognize that some confusion exists relative to the relationship between the existence of highly publicized "Superfund" hazardous waste sites, and the regulatory framework under RCRA (which we are discussing here today). The "Superfund" sites were created in an era of little or no regulation of hazardous waste management. The regulations which EPA has already put in place under RCRA go a long way toward minimizing future "Superfund" sites. S. 757 will help perfect that regulatory scheme.

We primarily have framed our comments to address S. 757. In addition, we've added references to H.R. 2867, in recognition that the Senate and House bills must eventually be reconciled.

First, I'd like to speak to Section 5 of S. 757 which deals with limitations on land disposal. CMA agrees that there are hazardous wastes for which certain forms of land disposal may not be adequately protective. The authority and direction provided by Section 5(a) adequately addresses this need and we support it. We believe, however, that there are two improvements needed which we believe you should consider. First, we would suggest dropping the word "technologically" from line 16, page 10 and adding "and commercially available" after the word "feasible". This modification would allow the Administrator up to two years to implement a specific prohibition provided suitable alternative capacity is not currently "feasible or available". While two years is at best only marginally adequate to allow permitting and construction in those cases where alternative capacity does not currently exist, such a provision would provide some time for generators to take steps to avoid or minimize business interruptions. Including the term feasible--which denotes both technical and economic feasibility--would give the Administrator the option to consider economics in those cases where the risk is sufficiently small to consider such factors in his determination.

Secondly, the Administrator should have the authority to grant site-specific variances in those situations where continued land disposal is adequately protective. Examples of such situations would include unique geology (ex: no proximity to usable groundwater), or process differences (waste characteristics, treatment or disposal technology).

With the modification of these two provisions, CMA would be in support of the language of Section 5(a), including the "Liquids in Landfills" provision.

We also support the concepts contained in Section 5(b) which would require interim status expansions of landfills or surface impoundments to install liners and leachate collection systems as would be required of a new unit subject to "Part B" permit standards. The only concern we have in this regard, is that an owner or operator complying with this section not be "second guessed" by the regional administrator in this regard when subjected to final permitting. By this statement, we refer to specific design details (such as liner thickness or material construction).

To relieve this concern, we recommend adding to Section 5(b) "in the case of any facility in which a liner and leachate collection system has been installed pursuant to these requirements and in compliance with the Administrator's regulations and guidance documents governing liners and leachate collection systems, no different liners and leachate collection system shall be required unless required as a part of a remedial or corrective action associated with unacceptable groundwater contamination".

We point out that H.R. 2867 contains--in its Land Disposal Provision--two features which we find troublesome and objectionable. First, specific categories of wastes, based on arbitrary concentrations of certain constituents, are slated for prohibition from all forms of land disposal 12 months from enactment--unless the Administrator deems such action is not required.

Secondly, the Administrator is instructed to make a finding of "yes or no" for continued land disposal for each listed and characteristic waste addressed by RCRA. Failure to make such a determination on schedule results in an automatic prohibition. Our concerns with these provisions include:

- The 12 categories of wastes specified in the bill requiring a determination within one year preclude application of good science. Prescribing such broad general categories (ex: pH less than 2.0) and arbitrary limits (ex: greater than 1000 ppm of halogenated organics) puts the Administrator in an impossible position due to the universe of materials which would fall in this category.

- The burden of making and documenting determinations for the thousands of waste/disposal method combinations will unreasonably absorb limited EPA resources and clearly cannot be completed within the schedule mandated in the bill.

- The concept of automatic prohibition if the Administrator fails to act is akin to "punishing Peter if Paul Fails!" Punishing the regulated community because the regulating agency falls short of congressional expectations is simply not equitable.

- We believe Congress should focus on inappropriate landfilling and disposal impoundments. Including waste piles, land farming and injection wells vastly complicates the task and indicts other methods with excellent records of environmental safety.

CMA is supportive of the balance of S. 757. We would point out however, that Section 9--which speaks to a biennial report--may be inconsistent with the need for better data on generation and disposal of hazardous wastes.

Lack of good data has continued to hamper industry. We support an annual report for the next several years at least.

Also, we have attached some rather detailed comments dealing with Section 6 ("listing/delisting") which we believe might be helpful in perfecting this language.

While not addressed by S. 757, the House Bill referred to previously, contains--in Section 11--several enforcement and legal provisions now being reviewed by the House Judiciary Committee. While firm and consistent enforcement is key to this and any other regulatory program, several of these provisions are of concern to CMA. Specifically, those provisions dealing with federal common law, creation of citizen suits for imminent and substantial endangerment even where operators are in full compliance with all regulations, the statute, and their permits, and the amendment of Section 7003 to make it retroactive are inappropriate and potentially disruptive. As these subjects are not addressed by the bill under consideration today, we'll not belabor our concerns but have attached comments addressing these issues for your future reference.

Mr. Chairman, we believe EPA has made good progress in implementing RCRA. We are all operating under interim status regulations which provide administrative, analytical, safety, reporting, manifest, groundwater monitoring, financial responsibility and other requirements for day-to-day operations. The final permitting standards for land disposal facilities and incinerators are in place and permit applications are being called for by the EPA regional offices.

The regulated community has put waste management into a position of receiving top priority. We recognize many of the CERCLA site problems we're paying to clean up today could have been avoided if we, and those who use and subsequently discard our products, had the same sensitivity and knowledge in the past we have today. We're doing a lot of training these days to make sure that sensitivity and knowledge permeates throughout the organization. We're auditing our own and our contractors waste management sites to insure compliance and responsible operation. We're inventoring our generation and disposal quantities so we'll be able to measure the results of our efforts to reduce both. We're reviewing our processes to identify new opportunities to reduce waste generation and increase our reuse and recycle. Finally, we're reviewing how we ultimately dispose of wastes to make sure we're using or moving toward the best technology and minimizing our dependence on land disposal.

We commend the committee for the bill under discussion today. It addresses the areas needing more emphasis without precipitously disrupting the momentum of programs currently underway. As Congress moves forward to reconcile the bills which have been drafted, we urge that this same approach be retained.

Citizens Suit Provision

Subsection 12(f) of the House Bill grants citizens a right of action against operators of Hazardous Waste Management Facilities to restrain the operator from creating an imminent hazard. This right would be present notwithstanding the operator's compliance with his or her permit and with all applicable regulations under the Resource Conservation and Recovery Act (RCRA). Creating such a right of action will generate serious problems for industry, the Environmental Protecton Agency (EPA) and the courts. The problems manifest themselves in a variety of contexts.

First, this provision would permit citizen suits to block the granting of a permit for a new hazardous waste management facility. In this context, it could be alledged that permitting the facility to operate would present an imminent hazard. Some courts have permitted analogous actions to proceed even where the threatened harm is not immediate. United States v. Hardage, No. 80-1031-W (W.D. Okla. Sept. 29, 1982).

Given that such an action could proceed, the consequences could be disastrous. State siting procedures and schemes would be disrupted. The RCRA permitting procedures, which provide for citizen participation, would be effectively nullified. Obtaining a permit or beginning construction of any new hazardous waste management facilities would become difficult, if not impossible. As a result, the construction of additional needed capacity could be effectively precluded. More important, the transition from landfilling to alternative disposal methods, such as incinerators, will have been impeded because of siting delays for alternative disposal facilities.

A second set of problems flows from the likely use of the citizen suit provisions against operating facilities. One area of problems relates to groundwater monitoring and, where necessary, groundwater cleanup. EPA's regulations require that reports be submitted providing the results of groundwater monitoring. 40 C.F.R. §265.94 (1982). In addition, operators are required to notify EPA if there is any statistically significant increase above background of certain indicators in groundwater. 40 C.F.R. §264.98(h)(1)(1982). Because the existence of such an increase does not necessarily indicate that a hazardous waste management facility is leaking, however, (increases can be due to seasonal variations, for example) EPA's regulations do not provide that a facility immediately be required to begin corrective action. Rather, additional, more detailed, groundwater analysis is required. See 40 C.F.R. §264.99 (1982).

These reports and notices that are filed with EPA are available to the public under the Freedom of Information Act. Citizens obtaining the reports may unjustifiably conclude that any increase over background means that the facility is leaking. Under the proposed amendment, they could then institute a citizens suit and disrupt the process of determining whether groundwater contamination exists.

A third area of concern relates to EPA's incinerator standards, which are not health-based standards but rather are technology standards. These standards require 99.99 percent destruction and removal efficiency of incinerated hazardous wastes. 40 C.F.R. §264.343(a) (1982). Thus, under this standard, 0.01 percent of a hazardous waste may remain after incineration. For an incinerator that handles tons of waste per year a citizen living in the surrounding environment may allege through a citizens suit, that the incinerator poses an imminent hazard and should be enjoined from operating. This would have the effect of shutting down an incinerator and requiring resort to additional land disposal.

A citizens suit provision would also completely undercut the careful permit participation and review procedures prescribed by Congress. As mentioned earlier, interested persons are entitled under RCRA, to participate in the permitting process. Section 7006(b) also gives interested persons the right to challenge the permit in a petition for review in the court of appeals for a period of 90 days. Thus, if an interested citizen wants to object to the terms of a permit, he or she can do so by participating in the permit proceeding and by seeking review in court. Once the 90-day review period has run, however, the permit is not subject to review. The citizens suit provision would completely destroy this carefully designed system. It would permit suits to be brought at any time challenging a permit upon an allegation of imminent hazard.

The implications of this are twofold. First, operators will lose all right to rely on their permits; certainty and predictability will be gone. Rational business judgments will become very difficult. Second, courts will be faced with potentially inconsistent results and conflicting jurisdiction. Citizens suit jurisdiction lies in the district court, while statutory review of a permit under Section 7006(b) lies in the court of appeals. Thus, suits could be proceeding in two different courts at the same time, or one after another, concerning the same permit.

Another troublesome feature has been added more recently to the citizens suit provision by Congressman Dowdy. The Dowdy amendment made the citizens suit provision retroactive, using language like that in the proposed amendment of Section 7003. This provision would allow citizens to sue generators, transporters and owners and operators to compel or fund the cleanup of inactive hazardous waste sites. We believe that this provision would, in many cases, slow down current cleanup effort under the Comprehensive Environmental Response, Compensation and Liability Act (CERCLA) and would create the potential for conflicting or inconsistent cleanup lawsuits.

If passed, this provision would give citizens a right to intervene in current cleanup suits brought by the Administrator. Rule 24(a), Fed. R. Civ. P. Thus, such actions, which already involve many parties, would be further complicated by the addition of even more parties.[1] This would assuredly delay the litigation and slow down actual cleanup operations.

Where citizens brought suits concerning sites that were not currently in litigation, it could subject defendents to subsequent lawsuits regarding the same site. Citizens could bring suit for the cleanup of a site. The defendents could then agree to settle and clean up the site. EPA and the Justice Department subsequently decide that cleanup was inadequate for the site. Because the Government was not a party to that original suit, it could bring a second action, regarding the same site, against [illegible] same defendants.

Citizens suits under such circumstances might also delay site cleanups. If EPA and the parties responsible for the site were in the process of negotiating an agreement to fund site cleanup, a citizens suit against some of the responsible parties would likely preclude any settlement between the Government and the responsible parties. They would feel that settling with the government would not be good enough, since the citizens might ask for more.

Citizens suits could also preclude EPA from using its other enforcement tools to obtain compliance. Although a lawsuit might not have been brought by the Government, EPA might be in the process of drafting an administrative compliance order under

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[1] It should be noted that existing Department of Justice procedures provide for public participation in the settlement of any hazardous waste suit.

CERCLA Section 106(a). This alterntive compliance tool could, in some cases, be preempted if citizens filed a suit. Therefore, the retroactive aspect of the citizens suit proposal will destroy the careful set of procedures developed by Congress in CERCLA.

In short, the citizens suit provision raises both practical and legal problems. It will eliminate certainty of operation of hazardous waste management facilities and will result in conflicting and inconsistent jurisdiction in the court. It will also create conflict and overlap with CERCLA. Therefore, we believe it should be deleted from the Bill.

SECTION 7003 OF THE RESOURCE CONSERVATION AND RECOVERY ACT (RCRA) SHOULD NOT BE MADE RETROACTIVE

Section 11(a) of the House Bill would amend Section 7003 of RCRA so that it could be used to compel cleanup of inactive waste sites, which are not currently subject to any RCRA regulatory requirements. This proposal is both unnecessary and unsound for a number of reasons.

First, inactive hazardous waste sites are already subject to the liability and cleanup provisions of the Comprehensive Environmental Response Compensation and Liability Act (CERCLA). These sites will be cleaned up either by responsible parties or cleanup will be funded pursuant to the Superfund. No hazardous waste will escape cleanup. Therefore, the provision is not necessary given the existence of parallel authority under CERCLA.

The current proposal is unsound because it could circumvent the carefully designed cleanup regulations, the National Contingency Plan, developed specifically for cleaning up inactive hazardous waste sites. These regulations provide comprehensive procedures to insure that cleanup will take place in an orderly and a cost-effective manner. The proposed amendment does not, however, require that these detailed and comprehensive procedures be used when cleanups are ordered under Section 7003.

Finally, the current proposal will make an already unclear area of law even more so. The question of the applicability of RCRA vis a vis CERCLA in a given situation is already uncertain. To create even more confusion and overlap in an area that is already confusing would seem ill advised.

In short, the provision is unnecessary because current law already governs the problem. It is unsound because it could circumvent the carefully prescribed cleanup procedures under CERCLA and because it adds unnecessary confusion to this area of law. Accordingly, it should not be included in the Bill.

Federal Common Law

Subsection 11(c) would overrule Milwaukee v. Illinois and create a federal common law of nuisance. We oppose this provision because it could permit suits against an operator for creating a nuisance even where the operator is in compliance with a valid RCRA permit and all RCRA regulations. This would, in effect, invalidate the comprehensive regulatory program developed under RCRA, and impose in its place standards for hazardous waste management set by the courts. Permitting such suits would not only be a mistaken intrusion into Congressional and the expert agency's policy decisions, it would create tremendous uncertainty, making rational business judgments virtually impossible. We believe, therefore, that this provision should be deleted from the Bill.

Comments of the Chemical Manufacturers Association (CMA) on Section 5(a) of Senate Bill 757

CMA does not oppose the purpose of the Senate Bill to restrict land disposal of certain hazardous wastes. However, we are concerned that the present Bill's language fails to recognize that serious disruptions to our member company operations would occur if a ban is put into effect before adequate capacity of feasible alternative technology exists where it is needed. We believe that the amendment can be improved by minimizing the potential for such disruptions while preserving its objective. In our view an effective program should contain the following features, many of which are contained in the Senate Bill:

- o a ban or restriction should be based on a regulatory determination by EPA that a specific waste and disposal method combination is not adequately protective of public health and the environment.
- o this determination should take into account the toxicity, persistence, bioaccumulation and mobility of the waste.
- o a ban should not be imposed unless a technologically and economically feasible alternative is available.
- o the date for compliance with the ban should reflect EPA's estimate of the availability of adequate capacity of the alternative.
- o however, whether the effective date of a ban is based on EPA's estimate or a date set by the statute, such as the two-year period contained in the Senate Bill, EPA should be required to monitor progress toward the compliance date. EPA should be given discretion to extend that date where, the Administrator determines that adequate local, regional or national capacity will not be in place and operable by that date and that good-faith progress is being made to provide the needed alternative capacity.

We believe that such a program would be further improved by providing these features as well:

- a generator should be allowed to petition for an exemption based upon a showing that his specific waste and disposal method combination is adequately protective of public health and the environment.
- a generator should be allowed to petition for a deadline deferral for his specific waste based on a showing that the alternative technology is not applicable to that waste and a good faith effort is being made to seek an alternative.

EXPLANATION OF THE CHEMICAL MANUFACTURERS ASSOCIATION'S (CMA) POSITION ON STATUTORY LANGUAGE REGARDING LAND DISPOSAL BANS

Restriction Should Be Based on EPA's Regulatory Determination that Land Disposal or a Method of Land Disposal for a Specific Waste Does Not Adequately Protect the Public Health.

Any land disposal restriction or ban should be promulgated by EPA, rather than having wastes banned in the statute. The complexity of the task, the level of detailed investigation required, and the difficult scientific and technological issues involved are all factors that make placement of responsibility for such issues in the hands of EPA. Moreover, by doing so any proposal will be subjected to rigorous public scrutiny through the rulemaking process. For these reasons, it is our view that there should be no statutory listing of waste that are banned from landfilling; rather, EPA should be empowered to develop such regulations as are necessary after the necessary scientific and technical data have been developed.

In addition, EPA should only be authorized to restrict land disposal of particular wastes, or a particular method of land disposal of certain wastes, where such disposal does not adequately protect the public health. Authorizing restrictions to be imposed on a broader basis than that could result in land disposal being banned where it can be done safely. Under those circumstances, alternative disposal methods may be less environmentally sound than land disposal. It might also cause EPA's limited resources being directed at too many regulatory targets, resulting in very little being accomplished. This can be avoided, however, by establishing EPA's regulatory decision threshold at the level that is the object of its action: protection of the public health.

Determination Should Take Into Account Toxicity, Persistency Bioaccumulation and Mobility of the Waste.

The current Senate proposal provides that EPA should consider toxicity, persistence, bioaccumulation, and mobility of the waste when deciding whether to restrict land disposal. These factors are almost universally agreed to be the most important for determining whether land disposal of a particular waste is adequately protective of human health. CMA accordingly supports their inclusion in the amendment.

Ban Should Not Be Imposed Unless A Technologically and Economically Feasible Alternative Exists.

The current Senate Bill limits EPA to considering technological feasibility when permitting extensions of the effective date of the ban. Doing so, however, unduly restricts the Administrator's discretion because it precludes EPA from considering economic factors in its decisionmaking. Such a restriction will prevent EPA from developing a rational and balanced regulatory program.

CMA recognizes that it may be inappropriate to consider economic factors in all cases. But while it may be inappropriate to consider economic factors where landfilling of a waste is clearly hazardous, for many wastes the degree of risk will not be so great and consideration of economic factors will be appropriate. The degree of risk posed by landfilling will vary from one waste to the next; for some wastes, the risk may be very high, for others it may only be somewhat higher than for wastes that can be safely landfilled. There will be no clearly defined line that will demark which wastes should and should not be landfilled. Rather, the degree of risk will range over a broad spectrum, depending on the waste involved. Therefore, the Administrator should be given discretion to consider both technological and economic feasibility.

Compliance Date--Deferral of the Ban on a Case-by-Case Basis Where Necessary

One of the most important features of any land disposal ban is that it be imposed in a rational and reasonable fashion. To insure this, a technologically and economically feasible alternative must be available and installed when the ban becomes effective. If the economic system is not given time to adjust to the ban, serious and disruptive consequences may result.

The Senate Bill provides that the ban will be imposed "immediately" or "on the basis of the earliest date" when the alternative disposal method will be technologically feasible. Initially, it must be emphasized that bans should be phased in, rather than being made effective immediately. Otherwise, plant operational systems will not have time to adjust, possibly requiring shutdown. Second, the "earliest date" when the alternative is technologically feasible is also inappropriate. Even though an alternative may be feasible, it will not necessarily be available. After the alternative is feasible, the capacity and actual alternative facilities must be constructed. This may, and in most cases does, take a substantial period of time. For example, the only current experience in permitting and constructing an incinerator relates to International Technology Corporation's facility in Louisiana. That facility took three years to construct and permit. Thus, although the alternative was technologically feasible some time ago, it took three years before the alternative, as a practical matter, was available. Thus, the effective date of the regulation should take into account the time necessary for constructing and permitting the alternative capacity, and set the date when that alternative capacity will in fact be available.

Likewise, the current Bill's two-year limitation on the extension of the effective date may preclude the rational implementation of the ban and cause economic disruptions. Given International Technology's experience with constructing and permitting an incinerator, the two-year limitation is unrealistic. In some areas of the country and for certain wastes, little or no incinerator capacity exists. For example, in the western part of the United States there are no commercial incinerators available that can handle solid wastes.

An inflexible two-year time limit in an area as complex as this will almost certainly result in problems. As we have seen with the PCB ban, where we were left with warehouses full of drums of stored PCB's because of having no alternative disposal method, we must move with caution and flexibility when imposing bans. As mentioned earlier, the economic system must be given time to adjust, or severe disallocations will result.

Flexibility can be enhanced by requiring that EPA monitor progress toward development of adequate alternative capacity and by giving the Administrator discretion to extend the deadline where such capacity is not in place. Thus, one of CMA's features for a land disposal ban is to grant EPA the needed flexibility to extend the ban if EPA determines that adequate local, regional or national capacity will not be available. We recognize, however, that this provision has the potential for encouraging less than expeditious action. Therefore, CMA's proposal would also require that EPA make a finding that good faith efforts have been made toward developing the needed capacity before the extension would be granted.

Flexibility should also be provided on an individualized basis, by permitting EPA to extend the deadline to be deferred on petition by a generator, who makes a showing that the alternative technology is not applicable to that waste and that a good faith effort is being made by the generator to seek an alternative.

The need for such a provision is demonstrated by the following. Land disposal bans will likely be imposed upon particular waste streams from certain production processes. But similar production processes sometimes generate very dissimilar wastes. One company's process may generate a waste that can be incinerated, while another similar process may generate a waste that cannot. Therefore, the statute should provide that where a particular plant's waste is not amenable to disposal or treatment by the proposed alternative, the ban can be deferred as to that particular waste.

Waste-Specific Exemption Where Waste and Disposal Method Combination Is Adequately Protective of the Public Health.

Ideally, a land disposal ban statute will also provide for an exemption based upon a showing that a specific waste and disposal method combination is adequately protective of public health and the environment. Many times the waste generated from a particular plant's process may be in a less mobile or even immobile form, compared with the waste from a similar process from another plant. In may be, therefore, that the waste can be landfilled without posing unreasonable risks. Likewise, a particular disposal method used at one site may adequately protect the public health and the environment. The means for resolving these site-specific and waste-specific problems should be provided for in the statute by giving EPA authority to grant specific exemptions from the ban under these and similar circumstances, so long as public health and the environment is still adequately protected.

Summary and Conclusion

In short, any land disposal ban should account for the serious practical problems that such bans will create for industry. The timing of the ban, the actual availability of adequate alternative capacity and economic feasibility are critical determinants of whether any ban will be implemented in a reasonable and rational fashion, without disruptive consequences. The ban must also have flexibility, both in timing and in applicability, to permit resolution of problems as they develop on a case-by-case basis. By addressing these concerns, the land disposal ban can be imposed without serious disruption of onging operations and can ultimately have beneficial consequences.

March 10, 1983

CMA Analysis of Senator Dodd's Proposed Amendment to Section 2, Section 3001(b) of RCRA (2/10/83 Senate Draft Bill Section 3)

CMA members recognize that there are many wastes currently not listed as hazardous, which are capable of being hazardous if managed improperly. Therefore, we do not oppose congressional efforts to encourage additional listing of hazardous waste. However, the bill which Senator Dodd has submitted requires revisions in order to be more workable.

1. General - Hazardous waste identification improvement should be a two-way street-improved listing and delisting. Provisions for prompt delisting of wastes that have been determined to be non-hazardous should be included.

2. (4)(A) - We are particularly concerned with the phrase "other related factors other than those for which the waste was listed". This language is overbroad and could potentially be used to negate any possible chance of achieving a delisting of a particular waste category. If a waste contains any Appendix VIII constituents, before EPA can conclude the waste is not hazardous, it must consider a list of designated multiple factors. (40 CFR 261.11(a)(3)). These factors which EPA considers during the listing process provide for a rather broad, general and comprehensive review, and include such considerations as: type of toxic threat posed; concentrations of toxic constituent; migration potential, persistence and degradation potential of toxic constituents; bioaccumulation potential; waste quantities; etc. We suggest restricting the scope of EPA's consideration for delisting to the already general and broad factors enumerated above. Without a clear understanding of the factors which EPA may consider, it would put a petitioner in an almost impossible position to show that its wastes are not hazardous and should be delisted.

   Any denial of delisting of a waste because of the presence of other constituents should require an amended listing so as not to violate the listing procedure of EPA rules.

3. (4)(B) - Temporary delistings shall expire six months after enactment. The additional information required to be considered by (4)(A) can be quite extensive in terms of getting another set of representative samples, analyzing them, evaluating the results, preparing a report to the Agency and discussing the results with the Agency. Nine months would be more appropriate than six months.

   EPA should be required to act on a delisting procedure within the time limits of the Dodd Amendment; thereby, not penalizing a generator, who has fully complied with EPA rules and procedures, for EPA's failure to act.

4. (4)(C) - Language is acceptable if certification by the plant manager is allowed. He, or his employees, are usually in the best position to attest to the quality of the data.

5. (5)(B) - Generally, we are opposed to statutory listing as a concept. Further, dibenzofuran should not be listed because it has not yet been part of the regulatory program. However, if this provision remains the time limitation for the Agency should be 18 months to be consistent with 3001(b)(1), which it amends.

6. (6)(D) - Requiring EPA to determine the appropriateness of using the extraction procedure for evaluating delisting petitions within six months is too short a period for a meaningful study. We suggest extending the time period to at least twelve months.

TESTIMONY OF
THE NATIONAL SOCIETY OF PROFESSIONAL ENGINEERS
ON THE
SOLID WASTE DISPOSAL ACT AMENDMENTS OF 1983 (S.757)
BEFORE THE
SUBCOMMITTEE ON ENVIRONMENTAL POLLUTION
COMMITTEE ON ENVIRONMENT AND PUBLIC WORKS
UNITED STATES SENATE

JUNE 9, 1983

Mr. Chairman and members of the Subcommittee, I appreciate having the opportunity to participate in today's hearing on the Solid Waste Disposal Act Amendments of 1983, S.757. My name is J. Paul Oxer, and I represent the National Society of Professional Engineers (NSPE) as a member of the Society's Water Policy Task Force. I am a registered civil engineer and am employed by Ecology and Environment, Inc., of Dallas, Texas, as a senior investigator on a hazardous waste site field investigation team.

Founded in 1934, NSPE is dedicated to advancing the social and professional environment of the engineering profession, and to serving the public interest by offering engineering viewpoints on matters of public policy in which engineering background and expertise are pertinent. The Society is composed of 80,000 members engaged in virtually every aspect of engineering practice and has affiliated state societies in every state and more than 500 local chapters.

Because NSPE encompasses all fields of engineering, our members are engaged in most aspects of hazardous waste management. Professional engineers in industry work in many of the firms which generate hazardous wastes, and are therefore responsible for finding safe, economical methods for recycling, detoxifying, and disposing those substances. A large number of our professional engineers in private practice specialize in hazardous waste management and many of them are pioneering new treatment technologies. Our professional engineers in government include experts employed by the government agencies which regulate hazardous waste disposal. Finally, engineers on the faculties of our universities often are deeply involved in research related to this problem.

Because of our strong membership interest in national hazardous waste policies, the NSPE Board of Directors adopted a formal position statement on hazardous waste management last January, a copy of which is attached to our testimony. In general, we believe that appropriate, engineered solutions can be made available which ultimately will provide for the environmentally sound management of hazardous wastes. We further believe that such solutions can be implemented within a reasonable, phased time period without placing unreasonable burdens on industry, consumers, or taxpayers. Our position emphasizes the need to promote alternatives to land disposal of untreated wastes, reform the delisting process, and revise the small quantity generator exemption.

Having provided an overview of NSPE and our interest in hazardous waste management, I will direct my comments to S.757.

Mr. Chairman, like you and the other members of the Subcommittee, we have been concerned over the disarray at the Environmental Protection Agency (EPA) and the resulting delays in the hazardous waste regulatory programs. We hope that the new administrator, William Ruckelshaus, will be able to get the Agency's efforts back on track. With this change in leadership, we believe this is an appropriate time for Congress to provide direction to the Agency.

In providing this direction, however, Congress must strike a precarious balance between, on one hand, moving so slowly that serious threats to human health and the environment are allowed to persist and, on the other hand, placing unreasonable demands and timetables on the EPA and on industry. We believe that it is crucially important that a stable, consistent program be put into place; that reasonable deadlines be adopted and strictly enforced for meeting regulatory requirements; and that the Agency be given sufficient resources to do its job.

The National Society of Professional Engineers supports S.757 as a step in the right direction.

Small Generators

The first point I wish to address is the small quantity generator exemption. We believe the current exemption from regulation for generators of less than 1,000 kilograms per month of hazardous waste is inappropriate. In fact, our position is that any numerical cutoff point for the exemption is ill-advised. For some particularly dangerous substances, all disposal should be regulated, while other wastes do not pose a problem except in very large concentrations. Therefore, we applaud the provision in S.757 which does away with any numerical cutoff for the exemption, but instead puts into place a series of actions to help ensure that these materials are properly disposed. The requirements that wastes be properly containerized and labeled and the revision of the standards which sanitary landfills must meet before they can accept small quantities of hazardous wastes all have a great deal of merit.

While I will address the provisions restricting land disposal later in my statement, at this point I wish to stress the importance of the Agency using the authority in S.757 to determine which substances should not be landfilled in any amounts, and which should be landfilled only in very limited quantities. The Subcommittee is well aware that the term "hazardous waste" covers a vast array of materials, including some which are relatively harmless except in large amounts and others which are dangerous even in small quantities. The EPA should have and use the authority to make those distinctions.

In this vein, we also endorse the bill's requirement that EPA work with the states to conduct a detailed study of small generators. While such studies are often viewed as substitutes for action, we feel that in this instance, more information is truly needed regarding the amounts and types of wastes being produced by small generators.

The proposal also requires the Agency to promulgate final small generator regulations within three years. While we would like to see quicker action, three years does seem to be a realistic time frame for such an undertaking. Nevertheless, if this provision is enacted into law, we urge this Subcommittee to carefully track its implentation by the Agency. There exists considerable evidence that small quantity generators are responsible for significant amounts of hazardous waste pollution, and EPA should not be permitted to allow the three-year deadline for final regulations to go unmet.

Land Disposal

We also support the directive that the EPA indentify wastes which, due to their extremely harmful characteristics, should not be candidates for land disposal.

There is a growing body of evidence that landfills, even those meeting all federal standards and utilizing state-of-the-art technology, cannot be guaranteed against leakage. Such leakage poses a severe threat to our groundwater resources which, once contaminated, are extremely difficult to restore to potable quality.

Furthermore, for many waste types, there are proven engineering procedures for recovery, detoxification, or destruction of hazardous materials. Some wastes are amendable to recycle or reuse in the original process or in other processes. The recovery of solvents by distillation is being practiced widely today. Solvents that are not suitable for recovery may be candidates for incineration, which destroys the waste and, in some cases, provides recoverable heat energy.

Many non-recoverable hazardous wastes can be detoxified by chemical treatment, and the resultant non-hazardous wastes can be safely buried in landfills. Detoxification can also be achieved through stabilization of complex wastes by addition of materials which create non-hazardous waste that will not leach hazardous substances when exposed in the natural environment.

Also, waste exchanges, which match industrial materials with industrial users of those materials are being organized to serve state and regional markets.

In determining when land disposal should be disallowed, the EPA Administrator should take into consideration the state of such technology. It is important to consider whether alternative methods are available at costs which are affordable to industry before making a decision on individual substances. In those cases where effective, affordable treatment or recycling methods are available, the Administrator should move swiftly to restrict land disposal. On the other hand, landfilling is simply the only option for some substances at this point in time.

Alternative Technology

We believe that the EPA should actively promote the transfer of recycling and detoxification technology, and NSPE urges that such a provision be included in S.757.

At the risk of going beyond the scope of the bill before us today, and even beyond the jurisdiction of this Subcommittee, we would urge the Congress to provide economic incentives to private industry to encourage the installation of on-site treatment facilities and regional waste treatment centers. At such centers, wastes which are not treated at the site of generation could be accumulated, segregated by waste types, and then treated, destroyed, or recovered. While we do not advocate the creation of a grants program for this purpose, we do believe that tax incentives and revenue bonds should be considered.

Listing and Delisting

Regarding the listing and delisting of hazardous wastes, we do not quarrel with the provisions included in S.757. However, we urge that greater attention be given to the delisting process.

The current EPA requirements and procedures for delisting treated or detoxified waste materials that have been listed as hazardous is an inefficient and wasteful bureaucratic exercise. Congress should direct the Agency to develop an efficient process for removing from regulation those substances which can be safely disposed as non-hazardous waste. Specific guidelines for delisting petitions should be published, and properly prepared and submitted petitions should be acted upon within three months. Clearly, the Agency's effectiveness is diminished when resources are devoted to regulating wastes which are relatively harmless. Such excessive regulation is also costly to industry. We urge that EPA be directed to implement a more efficient delisting procedure, and that the Agency be given enough resources to achieve that goal.

Conclusion

In conclusion, Mr. Chairman, we appreciate having this opportunity to present our views to the Subcommittee. We support the general thrust of S.757, but urge the Subcommittee to consider the additional points we have raised regarding alternative technology and the delisting process. Again, we commend you for your efforts to strengthen the national program for managing hazardous wastes.

FOREWORD

The "NSPE Position on Hazardous Waste Management" expresses the Society's official views on the legislation and regulations which govern the recovery, detoxification, and disposal of hazardous waste materials.

The National Society of Professional Engineers (NSPE) has an obligation to speak out on this issue, and to offer constructive suggestions from the perspective of the engineering profession on the implementation and improvement of the hazardous waste laws and regulations.

The primary goals of Federal policy should be to minimize the dangers to human health and the environment, both in the short and long term. A national hazardous waste management program should include a realistic assessment of detoxification, recycling and disposal technologies, and should encourage the utilization of proven and available methods for safely disposing of these substances or rendering them harmless.

NATIONAL SOCIETY OF PROFESSIONAL ENGINEERS

Environmental Policy Task Force

Edward P. Becker, P.E.
Janis C. Butler, P.E.
John J. McKetta, Jr., P.E.
Stanley M. Wilbur, P.E.

Kermit L. Prime, Jr., P.E., Chairman

INTRODUCTION

The Executive Committee of the National Society of Professional Engineers, during its semi-annual meeting in the summer of 1981, directed the NSPE President to vigorously pursue the development of a Position Paper on hazardous waste management. President Otto Tennant, P.E., subsequently requested that the Environmental Policy Task Force take responsibility for developing a proposal for consideration by the Executive Committee and the Board of Directors.

The Environmental Policy Task Force strongly agrees with the Executive Committee on NSPE's obligation to speak out on this issue, and recommends that this Position Paper be adopted as the "NSPE Position on Hazardous Waste Management.

While recognizing the magnitude of the waste disposal problem, the Task Force believes that appropriate, engineered solutions are, or can be made available which ultimately will provide for the environmentally sound management of hazardous wastes. The Task Force further believes that such solutions can be implemented within a reasonable, phased-time period without placing unreasonable burdens on industry, consumers, or taxpayers.

BACKGROUND

Congress has defined hazardous waste as discarded material that may pose a substantial threat or potential hazard to human health and the environment. Wastes are considered hazardous if they are toxic, reactive, ignitable, or corrosive. These substances, if not properly disposed, can contaminate ground and surface waters, the air, the food chain, and through direct contact adversely affect the health of people and animals.

While radioactive waste is hazardous, Congress has chosen to address that category separately from other hazardous substances. Accordingly, this Position Paper will only discuss non-radioactive hazardous wastes.

The magnitude of the hazardous waste management problem facing the United States is significant. The U.S. Environmental Protection Agency (EPA) has estimated that approximately 60 million metric tons (wet) of hazardous wastes were generated by American industry in 1980, and the volume is increasing. In the chemical industry, for example, waste generation is expected to increase by 3.5 percent annually over the next decade.[1]

The EPA estimated as recently as 1980 that 90 percent of hazardous wastes were not "managed" in accordance with Federal law. Eighty percent of the wastes have been stored in the generators' property, with 80 percent of that amount stored in non-secure pits, ponds, lagoons, or landfills.[2]

There are 760,000 generators of hazardous wastes. Of these, 695,000 are classified as small quantity generators (producing less that 1,000 kilograms per month) and are exempt from regulation under current EPA rules.[3]

LEGISLATION AND REGULATIONS CONCERNING HAZARDOUS WASTE

The Resource Conservation Recovery Act of 1976 (RCRA) was enacted "to provide technical and financial assistance for the development of management plans and facilities for the recovery of energy and other resources from discarded materials and for the safe disposal of discarded materials and to regulate the management of hazardous waste."

Under RCRA, Congress declared its intent that solutions to the hazardous waste disposal problem be found through: (1) recovery of the millions of tons of recoverable material resources which are needlessly buried each year; (2) conversion into usable energy those wastes which are potential energy sources; and (3) promotion of environmentally safe disposal of non-recoverable residues.

The EPA has promulgated regulations implementing RCRA periodically beginning in November 1980. Those regulations have addressed most aspects of waste management, with the most controversial being those applicable to owners and operators of hazardous waste treatment, storage and disposal facilities, and those providing the small generator exemption.

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[1] Federal Register, Vol. 45, No. 98, Monday, May 19, 1980.
[2] Ibid.
[3] Chemical & Engineering News, March 8, 1982.

PRINCIPLES OF HAZARDOUS WASTE MANAGEMENT

The National Society of Professional Engineers strongly supports the basic goals of the Resource Conservation and Recovery Act. At this time, however, the Society is primarily concerned over three major deficiencies in RCRA's implementation by the Environmental Protection Agency.

First, the EPA has designated many substances for inclusion under its hazardous waste regulations which are not hazardous under some circumstances or below certain concentrations. This has resulted in a program which is unnecessarily difficult to administer and imposes needless burdens on industry. This is particularly true with respect to delisting requirements.

Second, while recognizing that properly engineered and monitored land disposal facilities will continue to play a role in our national waste management program, NSPE believes that EPA has not placed enough emphasis on alternative technologies for recycling and disposing hazardous wastes.

Finally, NSPE believes that the current small generator exemption should be modified. Current EPA rules, which exempt generators of less than 1,000 kilograms per month, allow significant amounts of dangerous materials to escape regulation.

These three major concerns are discussed in more detail below.

Non-Hazardous Wastes

The current EPA requirements and procedures for delisting treated or detoxified waste materials which have been listed as hazardous are an inefficient and wasteful bureaucratic exercise. The Agency should emphasize development of an efficient process for removing from regulation those substances which can be safely disposed of as non-hazardous waste. Specific guidelines for delisting petitions should be published and properly prepared, and submitted petitions should be acted upon within three months.

As a general principle, the degree of risk inherent in any waste should be considered in all regulations concerning its disposal. Controls on hazardous wastes should be initially limited to those which pose a significant risk to the environment or to public health, and regulation of the disposal of waste should be appropriate to the level of risk involved.

Land Disposal

Land burial of hazardous waste will continue to play a role in our national waste management program for the foreseeable future. For a few types of wastes, there simply are no alternatives. For many other substances, recycling and detoxification technologies exist, but facilities are not yet in place. Nevertheless, EPA should encourage alternatives to land burial for hazardous waste whenever possible and economically feasible.

There is a growing body of evidence that landfills, even those meeting all Federal standards and utilizing state-of-the-art technology, cannot be guaranteed against leakage. Such leakage poses a severe threat to our groundwater resources which, once contaminated, are extremely difficult to restore to potable quality.

Furthermore, for many waste types, there are proven engineering procedures for recovery, detoxification or destruction of hazardous materials. Some wastes are amenable to recycle or reuse in the original process or in other processess. The recovery of solvents by distillation is being practiced widely today. Solvents which are not suitable for recovery may be candidates for incineration, which destroys the waste and, in some cases, provides recoverable heat energy.

Many non-recoverable hazardous wastes can be detoxified by chemical treatment, and the resultant non-hazardous wastes can be safely buried in landfills. Detoxification can also be achieved through stabilization of complex wastes by addition of materials which create a non-hazardous waste which will not leach hazardous substances when exposed in the natural environment.

Waste exchanges which match industrial materials with industrial users of those materials are being organized to serve state and regional markets.

Therefore, as a general statement of principle, NSPE supports a national policy which would disallow land burial for materials that present a significant risk to the environment, and for which economically achievable, environmentally sound alternatives exist. The Environmental Protection Agency should also promote the transfer of recycling and detoxification technology.

To complement EPA's efforts in this regard, the Federal and state governments should provide economic incentives to private industry to encourage the installation of on-site treatment facilities and regional waste treatment centers. At such centers, wastes which are not treated at the site of generation could be accumulated, segregated by waste types, and then treated, destroyed or recovered. Economic incentives the Society recommends for evaluation include tax incentives and revenue bonds, but not outright grants.

NSPE recognizes that a major impediment to treatment centers is related to locating acceptable sites for those facilities. State and Federal attention should be given to expediting the siting of treatment centers.

NSPE also recognizes that landfills which are properly constructed, maintained, and monitored will continue to play a role for the foreseeable future.

Small Generators

The National Society of Professional Engineers believes that the current small quantity generator exemption is too broad. By exempting generators of less than 1,000 kilograms per month from regulation, current EPA rules permit the improper disposal of amounts of harmful wastes which cumulatively represent a significant percentage of all hazardous wastes produced.

However, total elimination of the exemption may not be feasible at this time. The EPA and its counterparts on the state level simply do not have the resources to regulate all generators.

Therefore, NSPE adovcates that EPA restrict exemption for small quantity generators of wastes which pose a significant hazard to human health and the environment.

The Society notes with approval that the development of regional waste treatment centers will encourage small generators to dispose wastes in an environmentally sound manner.

SUMMARY OF RECOMMENDATIONS

The National Society of Professional Engineers recommends that state and Federal governments create economic incentives for private industry to provide treatment for hazardous wastes and to recover resources from waste materials. Comprehensive regional treatment and recycling facilities should be included under the options eligible for such incentives. Consideration should be given to mechanisms which expedite siting of these facilities.

The Society also recommends the following policies be legislated by Congress and implemented by the U.S. Environmental Protection Agency.

1. Increase emphasis on resource recovery, recycling, and detoxification of hazardous waste materials. Disallow land burial for materials that present a significant risk to the environment, and for which economically achievable, environmentally sound alternatives exist. Encourage the transfer of viable technology for recycling and detoxification of waste.

2. Simplify, streamline, and codify the complex regulations which have been issued to date to make compliance requirements more understandable to those who generate, treat or store hazardous wastes. NSPE will provide specific recommendations on a future date.

3. Codify procedures required for delisting petitions for treated wastes, and accelerate review and approval procedures by EPA. Specific guidelines for delisting petitions should be published and properly prepared, and submitted petitions should be acted upon within three months. Encourage delisting action by the states, where appropriate.

4. Restrict exemptions for small quantity generators of wastes which pose a significant hazard to human health and the environment.

5. The degree of risk inherent in any waste should be considered in all regulations concerning its disposal. Further controls on hazardous wastes should be limited to those wastes which pose a significant risk to the environment or to public health, and programs to encourage alternative methods of disposal should be emphasized to focus on those with the highest risk.

STATEMENT OF

THE AMERICAN CONSULTING ENGINEERS COUNCIL

The American Consulting Engineers Council (ACEC) is pleased to submit this statement on the 1983 Amendments to the Solid Waste Disposal Act.

ACEC has more than 3,800 member firms with nearly 120,000 employees in all 50 states. Our member firms provide public and private clients with planning, design, and construction management services in many fields, one of which is solid and hazardous waste management, treatment and disposal.

ACEC's 1979 directory of engineering firms engaged in solid and hazardous waste engineering management and resource recovery planning and design lists more than 400 member firms with experience and capability in municipal and industrial treatment, disposal and resource recovery waste systems. Technical services offered by these firms include collection and transfer systems, sanitary landfills, industrial waste processing and reduction, material separation, refuse-derived fuels, incineration and pyrolysis, hazardous and radioactive waste processing and disposal, sludge handling and treatment, and source separation.

Since 1979 the demand for technical services in solid and hazardous waste management has increased as the awareness and concern about hazardous wastes has expanded. Much is known about hazardous waste management but much remains to be learned, particularly about applying new treatment technologies to full-scale disposal systems. It is in this context that ACEC reviews and makes comments on S. 757, the 1983 Amendments to the Solid Waste Disposal Act.

Since the Act was last amended, major public policy events have occurred that require care in changing the law to meet its goals.

They include:

- Passage of the Comprehensive Environmental Response, Compensation and Liability Act (CERCLA), commonly referred to as Superfund;
- Issuance of EPA Landfill Regulations under the Resource Conservation Recovery Act (RCRA).

In addition, media coverage of sites like Love Canal, Valley of the Drums and Times Beach has increased public concern about waste disposal problems. Yet public support for solutions has not developed, especially where solutions require siting and permitting of treatment storage or disposal facilities.

No facilities have received final RCRA permits because no final RCRA regulations have been issued. Under these circumstances, additional statutory regulation of hazardous wastes, while essential to plug so called "loopholes" in the law, nonetheless must be viewed in the context of the questions, "Where will newly regulated wastes go? How much will treatment cost? What will be the impact on the disposing industry? What are the incentives or disincentives to compliance?"

Within the context of the events of the last few years, the public perceptions about hazardous waste and the above stated questions, ACEC generally supports the provisons of S. 757.

However, we have detailed some concerns about specific sections in comments below.

Section 4 - Small Quantity Generator Regulation and Study

ACEC supports the approach of S. 757 in requiring small generators to identify hazardous wastes, but does not believe it is advisable to require the permitting and disposal restrictions of large generators until completion of studies determining the volume and characteristics of the wastes and management options given treatment and disposal capacity. ACEC also believes the three-year deadline for final regulations based on the study is reasonable.

Section 5 - Land Disposal Regulations

ACEC supports the careful language of Section 5, which permits some flexibility and discretion as to which hazardous wastes and which methods of land disposal shall be prohibited by EPA regulations.

ACEC has long been concerned that without selective regulatory policy the disposal of hazardous wastes will take what appears to be the least-cost alternative, the so-called secure landfill. The experience of consulting engineers is that there is no such thing as a secure landfill, and the best engineering practice must be used to minimize and treat leachate and limit surface or ground water intrusion. From the perspective of life-cycle cost maintenance, leachate treatment and lost alternative uses for the contaminated land may make land disposal a prohibitively expensive alternative. Moreover, it does not solve the problem of safe conversion of hazardous materials to forms which eliminate the hazard or confine the hazard so it cannot be released to the environment.

This was our concern in the development of EPA policies related to Superfund clean-ups. However, containment by landfill may be a necessary interim step, where treatment technology has not yet been developed to efficiently, cost-effectively or safely convert wastes into a harmless, useable or stable material.

A good example of this is the challenge of the Missouri dioxin sites. Recently a representative of the Missouri Department of Natural Resources testified before the House Science and Technology Committee on alternative treatment methods. He noted the total volume of contaminated soil could exceed 400,000 cubic yards, or 500,000 tons. Current alternative technologies, assuming they could reduce the dioxin level to less than one part per billion are conservatively estimated to cost $2,000/ton or $1 billion. The natural or bacterially enhanced degradation of dioxin using some form of "land treatment" might not only be more cost-effective, but environmentally safer than excavating and transporting 40,000 truck loads of contaminated soil to a central processing facility.

In the same hearing CH2M Hill, an ACEC member firm under contract to EPA through the Superfund program, reported that treatment of a dioxin-type large scale contamination might require a facility comparable to a medium-sized chemical plant. It was also noted that the practicality of incineration, solvent extraction and other technologies "depends on the quantity and composition of the particular waste". Moreover many of these technologies require considerable additional development to bring them to commercial scale.

Nonetheless both the state of Missouri and CH2M Hill urged changes in the law to restrict landfilling, to encourage treatment and safe disposal of stabilized wastes or formerly hazardous wastes rendered harmless. They urged that the burden on the disposer be increased to not only demonstrate that landfilling can be "safely" managed, but that alternative treatment is not available or is infeasible.

We believe Section 5 meets these objectives.

Section 6 Listing/Delisting Modifications

Concern has been expressed that hazardous waste treatment and other alternative technologies can only be encouraged if the "delisting" procedures of EPA are modified to permit disposal of residues rendered safe in an expedited manner. High priority must be given to the development of a quick and practical test to determine if the waste is non-hazardous after treatment. Once delisted, the waste should then be subject only to the reduced regulatory requirements of solid waste.

It must be understood that treatment, even recycling, does not eliminate wastes. There will always be residues. Optimally residues are reduced in volume, stabilized, and returned to the environment with no ill effects. Even incineration leaves an ash which must be landfilled or otherwise disposed of in an ordinary manner. If the current delisting procedures do not efficiently allow that, there is no incentive to treat the wastes, rather than store untreated wastes or contain them in landfills.

Much has been learned about hazardous waste management since RCRA was first passed. But the ability to detect and measure parts per billion far exceeds the understanding of the environmental impacts of such levels of contaminants and the knowledge of how to extract, recycle, stabilize, neutralize or encapsulate them. It has long been ACEC's view that the best regulatory laws are those which provide incentives to industry to pursue pollution control, as good business practice, not those that motivate compliance through threats of sever sanctins.

We endorse the proposed amendments in S. 757 which generally encourage industry to treat hazardous wastes instead of burying them in landfill sites. ACEC urges Congress to remain in partnership with state and federal regulatory agencies and the regulated private sector as it fine-tunes environmental laws to seek cost-effective engineering solutions to hazardous waste disposal problems.

We appreciate the opportunity to provide the Subcommittee with our views on this important legislation.

Statement of
American Textile Manufacturers Institute
Before the
Senate Environment Subcommittee on Environmental Pollution
June 9, 1983

Mr. Chairman, we appreciate the opportunity to submit this statement with respect to the amendments to the current Resource Conservation and Recovery Act (RCRA). We support the current law which created a comprehensive regulatory scheme governing all aspects of hazardous waste, from generation to disposal. We believe that many of the problems that have developed implementing the act are more appropriately handled through the regulatory process and, in fact, the agency is already addressing several of these issues. Therefore, we would oppose substantive changes because we strongly feel their complexity will further delay the necessary implementation of this most important statute.

In reviewing the proposed amendments provided in S.757, we focused on only some of the major revisions and questioned whether or not they would insure better implementation of the RCRA goals and mandates as they relate to the textile industry. Our comments on some of the proposed changes are as follows:

Under Section 4, we feel the need for mandatory identification and proper containerization of hazardous waste from small generators when such wastes are to be transported off-site for treatment or disposal is well documented. However, we also believe that proper waste disposal and treatment can be solved without subjecting small quantity generators to the full force of regulatory requirements. Because of the complexity encompassed in the current RCRA regulations, small quantity generators would find difficulty in complying due to the general lack of expertise and other resources. This provision does, however, recognize the need for varying standards for small quantity generators and addresses the problem of obtaining transportation for small quantities by providing a longer period of storage -- up to 180 days.

Our primary area of concern with this section is the requirement that EPA modify the criteria for Subtitle D facilities within 30 months. This fails to allow the Administrator sufficient time to utilize data gathered from the second study concerning both types and quantities of wastes generated, and the need to require that such wastes be sent to only Subtitle C facilities. EPA should not be required to upgrade Subtitle D criteria to take into account the potential receipt of waste that will be later mandated to "C" facilities. It will tax the agency's limited resources when priority should be given to Subtitle C facilities and alternative types of disposal.

Section 5, entitled "Land Disposal Limitations", requires a ban on land disposal of any waste which will not be protective of human health and the environment. The Administrator must consider each waste currently banned by a state, any waste containing significant concentrations of halogenated organic compounds, or any petitions requesting a waste be banned. The key concern with the provision is the insufficient time given to the Administrator to make a determination. The provision requires that regulations must be promulgated within 12 months after enactment of legislation and become effective immediately. This restrictive time frame does not allow for proper assessment of each waste currently banned by states from land disposal to determine the need for a uniform material ban, nor will there be sufficient time to review every petition submitted to the agency. Arbitrary deadlines lead to poor scientific data and create additional legal involvement. Experience since the passage of the act has clearly illustrated the delays and costs that occur by taking the legalistic approach to technical matters rather than the scientific/engineering approach.

The ban may be delayed for a maximum of two years, if necessary, to develop alternative technology. Again, an arbitrary date has been chosen. There is simply no way one can dictate that technology can be developed to meet that schedule. This type of approach can only lead to missed target dates, further litigation and additional delays rather than achievement of environmental goals.

Under Section 6, the agency is required to submit a work plan to Congress within six months of enactment which includes developing characteristics of hazardous waste and determining whether certain constituents at specified levels should cause a waste to be hazardous per se. In addition, the work plan includes the appropriateness of using extraction procedure for delisting. There are currently several studies in progress to determine the need to list additional waste and the appropriateness of the extraction procedure. Regardless if the studies have been completed or if there is sufficient data to act, the provision that requires determinations to be made by a particular date ultimately results in unsound and unsupportable regulations. Furthermore, this provision requires that regulations be promulgated within two years of passage of the act. By altering the agency's priorities midstream, it can only create confusion and costly delays to regulations under development.

Section 7, entitled "Burning and Blending of Hazardous Wastes" requires regulation of production, distribution or burning of fuels containing hazardous wastes as necessary to protect human health and the environment. If Congress feels amendments in this area are necessary, mainly precipitated by those concerns surrounding the distribution and marketing of fuels, we urge that your subcommittee recognize the need to direct the Administrator to consider differences in burning practices in the case of fuels burned at the site where produced. Furthermore, we believe it is important that these practices be properly identified and support a one-time notification requirement for facilities which burn fuels containing hazardous wastes.

Essentially, our concern is that well-intended legislative and regulatory efforts designed to solve a problem in one section may unintentionally create substantial burdens on other sectors of the regulated community. For example, the Environmental Protection Agency's enforcement document on burning hazardous wastes as fuels which was directed toward suppressing the "sham" operator, In distinguishing legitimate energy recovery from sham burning, the agency arbitrarily determined that only wastes having specific heat values or greater would constitute legitimate or beneficial use. While this may be an appropriate criteria for commercial and residential boilers which may have short residence times, lack emission controls, receive limited maintenance and often are not informed of the hazardous constituents in their wastes, it is totally inappropriate for criteria for some industrial applications. With respect to some industrial boilers which produce the fuel burned on-site we believe the Administrator should consider such criteria, for example, as the quantity and nature of the wastes burned rather than the heat value.

Non-halogenated solvents, treated wood, and sheep wool mixed with oil, while having a low Btu value, pose no environmental concerns when burned. These types of wastes, for instance, would not require the thermal destruction capability of incinerators. With respect to textile facilities, they typically utilize compatible, non-halogenated wastes which represent an extremely small percentage of the total boiler operating capacity. The impact of such low quantities on emissions is negligible and non-quantifiable. Additionally, it is in the best interests of our operators/owners of on-site industrial boilers to insure that their boilers receive frequent maintenance and are operated by trained engineers who are knowledgeable about the wastes they are burning.

We have always felt that it has been Congress' intent, which is embodied in the principles and theme of the current Resource Conservation and Recovery Act, to direct industry to utilize alternative uses of hazardous waste as fuel. Therefore, we strongly believe that the Administrator must take into account those on-site burning practices that present no quantifiable environmental concerns before imposing any additional requirement which will only serve as a disincentive to companies seeking alternatives to land disposal.

In summary, Mr. Chairman, we recognize that hazardous waste generation cannot be eliminated and we should all try to do a better job of hazardous waste management through the continuation of realistic legislation, development of workable and enforceable regulations, and implementation of good practices that are environmentally sound, and economically and technically feasible. However, we also believe that enacting complex and disruptive amendments with unreasonable time frames will not be the means to meet this eventual goal.

Mr. Chairman, we appreciate the opportunity to work with you and your very capable subcommittee staff in addressing these important environmental concerns and hope to continue to do so in the future.

Statement of
Lawrence J. O'Brien, Jr., Esquire

I. INTRODUCTION AND BACKGROUND

Good morning, Mr. Chairman and Members of the Subcommittee. I am Mr. Lawrence J. O'Brien, Jr., General Counsel, of At-Sea Incineration, Inc. of Port Newark, New Jersey.

Today the United States stands at a crossroads with respect to the management of its hazardous wastes. There can, and must be, an alternative to the slow poisoning produced by the disposal methods of yesteryear. Thus, we welcome this chance to present our operating philosophies and their implications, and to discuss how Federal policies must be amended if this country is to encourage private sector investment in the drive to end the hazardous waste nightmare which has made horror a matter of routine on daily news broadcasts.

At-Sea Incineration, Inc., a subsidiary of the Tacoma Boatbuilding Company, is a private sector response to the federal Chemical Waste Incineration Ship Program. The company was formed with the object of providing an integrated system of chemical waste destruction services for combustible hazardous chemical wastes, including chlorinated hydrocarbons and PCBs.

Two American designed incinerator vessels are now under construction at Tacoma Boat's shipyard at Tacoma, Washington and are expected to come on line in early 1984. These vessels will be operated by American crews.

Our mode of operation is uncomplicated: we will collect wastes from those who generate toxic combustible organic liquids and PCBs and transport them to our shoreside marine transfer terminal where they will be blended to achieve appropriate incineration characteristics. Once loaded, our specially designed high efficiency incineration ships will travel to EPA-approved burn sites at sea, remote from populated areas, and destroy their cargo by means of incinerators built by the Coen Company, Inc. of California. Coen, a manufacturer of power burner hardware, has designed our incinerators to meet the same rigid requirements as those mandated for land-based incinerators--namely a minimum destruction efficiency of 99.99%.

It is no overstatement to say that the integrated system for hazardous waste destruction via ocean incineration as proposed by At-Sea Incineration is more regulated than any other hazardous waste technology, subject, as it is, to a complex array of land, water, and maritime safety laws and regulations. Since our company's startup and operating mode are in large part the result of government regulation, we wish to take a moment to review the body of international and domestic law which governs our operations and to describe the major efforts of the Ford and Carter Administrations whereby the Federal Government thoroughly studied and endorsed this major innovation in waste destruction.

II. RELEVANT LAW AND REGULATIONS

It was the Convention on the Prevention of Marine Pollution by Dumping of Wastes and Other Matter (1972), known generally as the London Dumping Convention ("LDC"), which established regulation at the international level for ocean incineration, under the aegis of the International Maritime Organization ("IMO"). Nine other international safety and pollution codes, protocols, conventions, and agreements also regulate such activity, and the IMO has proven to be a diligent supervisor of international standards.

The LDC was implemented in the United States by means of the Marine Protection, Research, and Sanctuaries Act of 1972 (known generally as the "Ocean Dumping Act"), and I should emphasize, Mr. Chairman, that while ocean incineration provisions are found within what we call ocean "dumping" legislation, there is absolutely no dumping or depositing of waste into the water in the ocean incineration process. Our seagoing incinerators will produce a vapor plume containing carbon dioxide, carbon monoxide and hydrogen chloride which falls onto the sea surface. However, as several major studies of actual ocean incineration operations have demonstrated, there is no detectable impact on the marine environment. In fact, EPA's study of a recent PCB burn revealed no measurable waste materials at all in the vapor plume, which means that more than 99.99% of the waste cargo was destroyed. At any rate, at the expense of being something of a misnomer, it is the Ocean Dumping Act which establishes performance standards for ocean incinerators.

Marine operation of incineration craft is also governed by the Ports and Waterways Safety Act of 1972 and the Port and Tanker Safety Act of 1978, which establish a stringent, comprehensive program dealing with the design, construction, operation, equipping and manning of all tanker vessels using U.S. ports. In addition, our marine operations will also be subject to the Federal Water Pollution Control Act Amendments and the Intervention on the High Seas Act, which jointly empower the Coast Guard to act to mitigate, prevent, or respond to threats to the marine environment. Finally, pursuant to the Breaux/Biaggi amendment to the Jones Act in the 97th Congress all ocean incineration ships must now be built and manned by Americans to conform to American standards, if they are to operate in U.S. waters (with only two exceptions).

It is important to note that while this array of legislation governs ship operation there is also stringent control of vessel construction. We are told how to build our ships by the U.S. Coast Guard, EPA, the International Maritime Organization and the American Bureau of Shipping (ABS), our national ship classification society. Each of these organizations implements the law so as to specify the cargo tank and piping locations and to establish minimum standards for vessel stability.

On the land side, our marine transfer terminal facilities are subject to the Resource Conservation and Recovery Act of 1976 and its permit requirements; carriage of waste from point of collection is governed by the Hazardous Materials Transportation Act. We must also comply with relevant state laws, as in New Jersey, where we must satisfy the terms of S.1300, the Major Hazardous Waste Facility Siting Act, which mandates detailed public hearings and requires that we prevail in two administrative proceedings by clear and convincing evidence before any transfer facility can be constructed. Above and beyond this S.1300 process, the marine transfer facility must also stand review by state personnel charged with enforcing the State of New Jersey's stringent hazardous waste rules.

At the Federal level there has been considerable study and analysis of ocean incineration. For example, an Interagency Ad Hoc Work Group for the Chemical Waste Incinerator Ship Program was composed of representatives of the Maritime Administration (now part of the Department of Transportation), the U.S. Coast Guard, EPA, and the National Bureau of Standards, and it produced a complete report of major import in 1980. In a nutshell, its findings included the following, among others:

- "Incineration at sea . . . has been demonstrated to be an environmentally acceptable and efficient means for destruction of liquid hazardous organic chemical wastes."

- "Adequate laws and conventions to regulate the design, construction, and operation of incinerator ships presently exist."

- "It [ocean incineration] is the technical equivalent of land-based incineration."

- "Water quality is not necessarily impacted by at-sea incineration."

- ". . . [D]ependence on foreign flag incinerator ships is not in the best national interest."

On October 8, 1980, EPA Administrator Douglas M. Costle and Maritime Administrator Samuel B. Nemirow formally endorsed the Group's conclusions, thanked its members for a "job well done," and redesignated the Group as an Interagency Review Board. Members of the Committee should know that the Interagency Group's findings were based upon empirical data and not on speculation or deduction; among the materials which have been safely destroyed at sea are some of the most dangerous substances, including Herbicide Orange and PCBs.

III. FEDERAL POLICY CHANGES

At-Sea Incineration believes that the Congress now has an unparalleled opportunity to change our national waste management course. Further, we believe that the Office of Technology Assessment ("OTA") has outlined the issues clearly in its impressive study Technologies and Strategies for Hazardous Waste Control, published in March.

The OTA Report has grasped the heart of the matter: Land disposal and on-site destruction are the cheapest alternatives in terms of cost and unless and until Congress declares an intolerance for such practices, there will be neither cost nor regulatory incentive to resort to other means of disposal. The OTA study says it best, and I quote from pages 14 and 16,

> "An important conclusion, however is: even though RCRA regulations will increase land disposal costs, land disposal is still likely to be the low-cost option under the current regulations for most hazardous waste . . . "
>
> [and]
>
> "The current regulatory structure does not directly encourage consideration of alternative, safer, and more permanent solutions to problems posed by the very complex nature of hazardous waste."

What should be done?

We believe that the House Committee on Energy and Commerce has taken a bold and impressive step toward a vastly improved national waste disposal system in H.R. 2867, particularly in Sections 5 and 6 of that legislation. We urge the Senate to adopt that Bill's presumption against landfilling as well as its' regulation of cement kilns and other facilities which burn and blend for energy recovery. We agree with the House Committee's Report (No. 98-198) that there will never be a plausible reason for generators to consider alternatives to landfilling or burning in cement kilns while those techniques are economically or regulatorily cheap.

We concur with OTA that there should be some form of "carrot" or economic incentive to stimulate use of new or innovative waste disposal techniques, and we note that several states have already moved in that direction. A tax credit would appear ideal, and such a benefit should run to the generator who uses preferred destruction methodologies. A complementary fee could be imposed upon those who do otherwise when a safer alternative is available. (See the OTA Report at 32-33).

Perhaps the largest waste generator in the United States today is the Government itself, acting through the Department of Defense ("DOD") and the General Services Administration. U.S. waste is disposed of, as it should be, by closed, competitive bid under relevant property disposal regulations to lowest cost bidders. But you can guess where that takes it: into the lowest cost landfill.

This problem is enormous since DOD property disposal officials tell us that they cannot precisely pinpoint how much waste they possess because each base or post manages its own account. Moreover, government wastes will increase in volume: full operation of the space shuttle alone will produce millions of gallons. Thus, we believe that Congress should direct early, if not immediate, Government use of alternatives of land disposal.

IV. CONCLUSION

In conclusion, Mr. Chairman, we thank you for this opportunity to testify. We welcome any chance to present our case because only through open discussion can the public come to understand that there are safe alternatives to current practices. All too often issues affecting public health are addressed with short shrift given to a careful, precise weighing of the facts. For that reason, we welcome the public hearings required by the Federal and state laws, for we believe that an honest, objective, dispassionate weighing of expert and scientific testimony will result in approvals of our technology.

But while there is ample provision in the law for weighing the relevant scientific facts, only Congress can decide whether alternatives to land disposal will ever achieve economic viability: we at ASI have found that investment capital follows federal policy. In other words, as long as waste generators can find loopholes in the law which allow them to dispose in landfills or with on-site cement kilns they will do so, and the marketplace will not divert investment dollars into new alternatives. Conversely, a rigorous public policy which turns away from land disposal will hasten new venture investment. Clear Congressional signals are therefore a key element in predetermining market responses to the hazardous waste problem.

We commend the Committee for taking up this vexing problem and we urge the 98th Congress to establish a regulatory environment in which the best efforts of American business can be brought to bear on this pressing problem.

STATEMENT OF ATLANTIC RICHFIELD COMPANY

Atlantic Richfield Company appreciates this opportunity to present its views on the reauthorization of the Resource Conservation and Recovery Act (RCRA). Since the passage of RCRA in 1976, management of hazardous waste has improved dramatically. This regulatory effort has shown the need for clear Congressional directives in the area of hazardous waste management. We, therefore, support the efforts of this committee to review critically the existing waste management system and to make constructive changes in the law.

Atlantic Richfield Company believes efforts should be made to move society away from unnecessary land disposal of wastes, but that the transition must be made only when other technologies are economic, technically feasible and environmentally sound. We believe that the use of a waste generation and disposal tax, rather than a feedstock tax as currently found in the Comprehensive Environmental Response, Compensation and Liability Act (CERCLA), can play an important role in this transition.

Atlantic Richfield Company supports amendments that encourage a study of the contribution made by small generators of hazardous waste to determine if additional controls are required.

We also continue to support a central objective of RCRA, which is to reuse and recycle wastes. Overregulation on blending and burning of wastes as fuel may discourage their reuse and recycle without improving environmental quality. Therefore, blending and burning regulations should be instituted only when scientific evidence indicates a need for such regulation.

The following presents, in greater detail, Atlantic Richfield Company's views on these, and other, issues that we believe are important for improving a comprehensive hazardous waste management program.

Land Disposal

Atlantic Richfield Company supports efforts to encourage the development of alternate technologies that will move industry away from land disposal. We believe a ban on land disposal should not be put into effect for a specific waste unless the Environmental Protection Agency (EPA) has determined that the land disposal of that waste presents a hazard to the public health and/or the environment and that adequate alternative disposal capacity, which is economic, technically feasible and environmentally sound, is available. Unless these conditions are met, a ban on land disposal will create tremendous environmental problems and, in fact, could encourage midnight dumping or other improper disposal practices. Additionally, we believe that provision should be made for a variance if a generator can demonstrate that his land disposal technique of the waste in question does, in fact, adequately protect public health and the environment.

Incentives to Move from Land Disposal to Alternate Technologies

Rather than imposing a land disposal ban, this Company believes Congress should change the funding mechanism of CERCLA to tax waste at the point of generation and when disposed of in landfills rather than taxing crude oil and chemical feedstocks. Since the 1980 Superfund debate, Atlantic Richfield Company has advocated that a waste-based tax is preferred to a feedstock tax. Recent experience in California indicates that a waste end tax does contribute to a reduction in the generation of hazardous waste.

Considering the volume of hazardous waste currently produced and the critical shortage of landfill capacity in this country, Congress should move quickly to change CERCLA's taxing structure to a waste generation fee and a landfill disposal tax, rather than employ the much more disruptive and less effective mechanism of a landfill ban.

Atlantic Richfield Company believes that a waste end tax would effectively address the landfill disposal problems this Committee is seeking to solve. However, it must be realized that the creation of waste is an inevitable by-product of industrial and economic activity, and of effective air and water pollution control. Even after alternatives to landfill disposal are employed, some hazardous residual, which requires some type of permanent disposal, will remain. For example, incineration of wastes results in an irreducible inorganic residue that is, as defined by RCRA regulations, a hazardous waste. Additionally, some wastes, such as those consisting primarily of inert materials, do not have any alternative to land disposal. Therefore, there will be a continuing need for land disposal even when alternative technologies are perfected.

Hazardous Waste Facility Siting

It must also be realized that a shift from land disposal does not resolve the difficult issue of hazardous waste facility siting. Atlantic Richfield Company believes that the issue of hazardous waste treatment and disposal facility siting should be addressed by this committee if we are to ensure the continued safe handling of hazardous wastes. We welcome the opportunity to discuss with this committee our views on the important components of hazardous waste facility siting legislation.

Land Disposal/Land Treatment

Atlantic Richfield Company also believes the definition of land disposal should be clarified. Currently, the definition of land disposal encompasses both landfilling and land treatment. Land treatment is an alternate management technology that involves the controlled application of a waste on the soil surface and the incorporation of the waste into the upper soil zone. It is not the indiscriminate dumping of waste on land.

Land treatment differs from landfilling in that landfills store wastes in man-made or natural excavations and use a combination of liners and leachate collection systems to control migration of stored wastes or resultant by-products, while land treatment relies on the dynamic physical, chemical and biological processes occurring in the soil. As a result, the constituents in the applied wastes are degraded, transformed or immobilized to environmentally acceptable components.

A well-operated land treatment facility is a viable technology that reduces not only the amount of waste but degrades it into harmless products of respiration. Land treatment is a common practice for certain petroleum refinery waste products and has been used by the petroleum industry for over twenty five years from Canada to the Gulf Coast. The practice is now being embraced in Europe as well. Differentiating this management technique from landfilling is not only technically justified but environmentally sound.

Finally, for wastes at abandoned locations, waste reduction is not an issue, since one is dealing with a fixed amount of material. What is clearly needed in these instances is the greatest amount of flexibility to resolve the problem while maintaining environmental safety. Remedial action at abandoned sites is different than ongoing disposal of waste materials. This difference should be recognized in the legislation.

Small Generators

Currently, RCRA exempts from its requirements generators of hazardous waste in quantities of less than 1,000 kilograms per month. This small generator exemption provides significant relief from the administrative burdens of RCRA without interfering with the regulation of the vast majority of hazardous waste that is generated.

Atlantic Richfield Company believes that further study of small generators and their wastes and disposal practices is warranted before legislating additional control of these small operations. We support those provisions of S. 757 that call for such an approach.

Atlantic Richfield Company still believes that, depending on the outcome of the study conducted by the Administrator as required in S.757, some de minimus cut-off level should be continued below which generators of waste should not be subject to full regulatory requirements.

Definition of Solid Waste

Atlantic Richfield Company believes that wastes which are used, reused, recycled or reclaimed in an environmentally sound manner should be exempted from the full requirements of RCRA. Specifically, we believe waste which is reclaimed for reuse by an operation and waste reclaimed pursuant to "batch tolling agreements," whereby the generator retains ownership of the material, should be exempt. These exemptions, which are consistent with the EPA's recently proposed amendments to the definition of solid waste, would provide considerable administrative relief without increasing the threat to public health or the environment.

Also, we believe that exemption from the full requirements of RCRA should be provided for hazardous wastes which are transported to an adjacent permitted treatment or disposal facility owned by the waste generator.

Blending and Burning

RCRA, as passed in 1976, was intended to encourage the recycle and reuse of hazardous waste. Atlantic Richfield Company believes that objective remains central to the law. We also believe that when a waste can be safely put to beneficial use, it should be done. EPA currently is conducting a study on the issue of burning wastes as fuel. Atlantic Richfield Company supports efforts to develop a sound technical data base prior to instituting a program to regulate burning wastes as fuel. The overregulation of wastes used as fuel can pose economic disincentives to burning the waste and recovering its heat value. We believe that such a disincentive runs counter to the goals of RCRA.

Listing/Delisting

Atlantic Richfield Company is generally supportive of the listing/delisting provisions of S. 757. However, the authority for the Administrator of the EPA to consider "criteria, constituents or other related factors, other than those for which the waste was listed" in a delisting petition causes significant problems for waste generators (emphasis added). The "other than those for which the waste was listed" clause is a critical issue as it relates to criteria, constituents and other related factors. Specifically, it presents a moving target for the generator who does not have notice of and cannot address factors "other than those for which the waste was listed."

Mandatory Inspections

Atlantic Richfield Company believes inspections of RCRA permitted facilities are an integral part of any hazardous waste management program. We recommend, however, that the EPA rely as much as possible on inspections that are currently being administered or conducted by state agencies with appropriate overview by EPA. By so doing, considerable time and effort will be saved for both industry and government.

Atlantic Richfield Company also recommends that the EPA's inspection program focus on those facilities that have a history of serious violations.

Finally, S. 757 requires the EPA to submit a report to Congress on the potential use of nongovernmental inspectors to supplement inspections conducted by the agency. Atlantic Richfield Company believes it is inappropriate to use nongovernmental inspectors for this purpose due the confidentiality of certain operations and the possible violation of trade secret information.

Atlantic Richfield Company appreciates this opportunity to provide the committee its views on RCRA reauthorization. We stand ready to answer any questions you may have and to provide additional information on this important issue.

**AUTOMOTIVE
LEGISLATIVE COUNCIL
OF
AMERICA**

A.L.C.A.

1725 K STREET, N.W. WASHINGTON, D.C. 20006 (202) 331-9825

June 14, 1983

The Honorable John Chafee, Chairman
Subcommittee on Environmental Pollution
U.S. Senate
Washington, D.C. 10510

Dear Mr. Chairman:

ALCA (Automotive Legislative Council of America) is an affiliation of state automotive service associations, representing approximately 7,000 automotive repair facilities, both mechanical and autobody, employing an average of 5 persons per facility, which adds up to over 36,000 independent automotive repair members.

As Chairman of the Board of ALCA, I wish to comment for the record regarding your current hearings regarding the Resource Conservation Recovery Act reauthorization.

We strongly believe that small independent service facilities (which may be small generators) should not be subject to the onerous burdens of regulations imposed upon those generating over 1,000 kilograms of hazardous waste per month. We have heard the arguments expressed in Committee and elsewhere that EPA is not doing its job properly regarding the hazardous waste issue. We believe that if indeed the Agency has been lax in dealing with large generators of hazardous waste under the Resource Conservation Recovery Act you should take appropriate action to encourage EPA to do a more effective job in that area.

Our industry, as a possible small generator, faces the initial problem of being unable to identify what is, or is not, hazardous. Because of their smallness, our individual members would, if such legislation is adopted, face tremendous burdens in attempting to comply with the vast paperwork trail generated under RCRA's regulations.

EPA has already let a contract for the study of the small generator question and we would strongly urge your Subcommittee not bring in these small generators until that study is completed. Both Congress and the Agency must have the facts to know the extent of the problem they are attempting to address. ALCA agrees with EPA in their regulatory decision that either 97 or 98 percent of the hazardous waste generated in the country is generated by those putting out more than 1,000 kilograms a month. The premise of "the greatest good for the greatest number" which prompted the Agency to focus its attention on large generators rather than trying to take in precipitously the entire business community was a wise and environmentally sound decision. We strongly believe the exemption should remain at the 1,000 kilogram level. It is one which we strongly believe must be maintained until the agency's study of the small generator issue is completed and it has been determined whether or not it is a problem. When the facts are in place then Congress can knowledgeably act.

In another area of expressed concern, our industry is unique in that in the Northern regions of the country, small quantities of waste oil are used by service facilities to heat their buildings during the winter. The Southern portions of the nation sell all of their waste oil to recyclers as it is a commodity which is an income producer for our members.

Attached for your information is an ad for the Kroll waste oil fired heater which uses as a heating fuel, crankcase and transmission oil accumulated in our Northern shops. Please note that many city, state, and federal agencies along with the military have purchsed these environmentally sound pieces of equipment for use in their facilities. It's not just used in service stations, repair shops, etc. They are not large pieces of equipment which would suffice for apartment buildings or offices, but are of a relatively low BTU level with a residue that is safe for ordinary disposal.

In conclusion we urge the Subcommittee not to take further action regarding the small generator issue until the Agency has completed its study and the necessary facts are available to make logical, not emotional, environmental decisions.

The Honorable John Chafee
June 14, 1983
Page three

Should you have any questions regarding our position, our Legislative Consultant in Washington, Richard F. Turney may be contacted at 331-9825. He will be glad to assist in any way possible consistent with our Board's direction.

We respectfully request that this letter be made a part of the hearing record of your current RCRA hearings.

Sincerely yours,

Allen Richey
ALCA Board Chairman
Executive Director
Independent Automotive Service Assn.
Bedford, Texas

cc: Robert Stafford
Howard Baker
Alan Simpson
James Abdnor
Steve Symms
Pete Domenici
David Durenberger
Gordon Humphrey
Jennings Randolph ✓
Lloyd Bentsen
Quentin Burdick
Gary Hart
Daniel Moynihan
George Mitchell
Max Baucus

CONCERNED CITIZENS OF ADAMSTOWN
2455 Ballenger Creek Road
Adamstown, Maryland 21710
June 6, 1983

Senator John Chafee, Chairman
Subcommittee on Environmental Pollution
SENATE COMMITTEE ON ENVIRONMENT AND PUBLIC WORKS
United States Capitol
Washington, D.C.

RE: Smelter Wastes Under RCRA

Dear Senator Chafee,

I am writing on behalf of the Concerned Citizens of Adamstown to solicit your support of our efforts to have smelting wastes from aluminum smelters relisted as hazardous wastes under RCRA.

Spent potliners from primary aluminum reduction were listed as hazardous waste under RCRA prior to 1980, however, in response to the Solid Waste Disposal Act Amendments of 1980 (Bevill Amendment), smelting and refining wastes were dropped from RCRA due to pressure from several trade associations representing the mining industry which caused EPA to broadly interpret the scope of this Amendment to include smelting wastes.

At the time of the delisting, EPA expressed reservations as to the intent of Congress concerning smelter wastes. "In the absence of direction from Congress" (Federal Register Notice), EPA included these wastes under the mining exclusion.

We live near a primary aluminum smelter which is storing the very same waste listed under RCRA (prior to 1980) on the bare ground, allowing fluoride (6000 ppm in leachate - MD State Lab data) and cyanide 1600 ppm leachate) to flow onto the ground, and possibly enter our groundwater. We have filed a petition with EPA to have spent potliner relisted due to toxicity and the possibility of mismanagement of waste piles.

In our petition we cite the debate within EPA concerning the intent of Congress, and submitted a letter from Senator Jennings Randolph, ranking minority member of the full Senate Committee, which expresses the following:

> "Certainly, Congress did not intend the suspension of regulations for mining wastes to apply to wastes which prior to the 1980 amendments had been specifically listed because of their hazardous nature. The study provided under section 8002 is not needed for such wastes (from smelting and refining operations) and they should be regulated as hazardous wastes under subtitle C and authorized State programs." (letter attached)

In addition, Congressman James Florio has been working with our organization regarding comment on the "exclusion" on the House side. In the May 1983 Report of the House Committee on Energy and Commerce regarding Utility and Mining Wastes (p. 43), the issue of smelter wastes is addressed:

> "It should be clear that the deferment (mining exclusion) is limited to wastes specified in 3001 (b)(3); it does not include solvents, degreasers, pesticides, smelting and other wastes generated independently of the processes listed in 3001(b)(3)."

We believe that the issue of smelter wastes needs to be addressed now. Therefore, we strongly urge you to raise the issue this week at the Subcommittee hearings. Of primary importance to our organization is the disposition of our petition to re-list those wastes from smelting and refining operations, which prior to the 1980 amendments had been specifically listed because of their hazardous nature.

Numerous Super-Fund sites contain smelting and refining wastes. One such site is the Kaiser Aluminum spent potliner dump in Meade,Washington. Leachate from this site has already infiltrated the Spokane (Washington) aquifer, necessitating closure of local wells. The Eastalco smelter in Frederick county (Maryland) near our homes has a five acre landfill of these same wastes. It has come to our attention in the last two weeks of the existence of this site, and we are investigating groundwater contamination at the present time.

Our petition to relist spent potliners is supported by the Maryland Conservation Council (30,000 members) and the Frederick County Farm Bureau. Yesterday, the Washington Area Council of Governments (COG) subcommittee endorsed our petition, and sent a resolution on to the full committee. The resolution passed unanimously. COG was most concerned with the problem of pollution of the Potomac River from Eastalco effluent as the NPDES discharge from the plant is directly into the Potomac. Cyanide is not removed prior to discharge.

We would be glad to provide additional information concerning the aluminum smelter waste problem to your staff. I can be reached during the day at (301) 694-8111 or at home at (301)874-2337.

At the subcommittee hearings this week please question Lee Thomas, EPA witness concerning our petition. Also, please support Senator Randolph's position (in Amendment to RCRA reauthorization that mining wastes,which prior to the 1980 amendments had been specifically listed because of their hazardous nature, we regulated as hazardous wastes under subtitle C and authorized State programs.

Sincerely yours,
Christy Carton
Christy Carton

Enclosure

CONVERSION SYSTEMS, INC.
115 Gibraltar Road, Horsham, PA 19044 (215) 441-5900 • TWX 510-665-6746

July 20, 1983

The Honorable Alan K. Simpson
Environmental and Public Works Committee
United States Senate
Dirksen Senate Office Building 410
Washington, DC 20510

Dear Senator Simpson:

The "Minimum Technological Requirements" contained in S757, which pertain to landfills cause us great concern. We believe that the lack of a variance from the double liner requirement for landfills, which have exceptional hydrogeological conditions, is counter-productive and a disservice to the American public. Sites located in remote, arid areas, with great distances to groundwater, are the safest and best disposal facilities in the country. Because they are remote, transportation costs are high. Requiring an unnecessary double liner would make them noncompetitive, thereby cancelling the safest disposal of hazardous waste.

All disposal sites are not the same! A single, simplistic requirement applying to all sites is detrimental and negates the very protection the act is attempting to provide. Sites with outstanding hydrogeological conditions should be exempt from the liner provisions. Provision for such a variance should be provided in the act. As an example, we cite the conditions at one of our landfills:

- 3000 ft. to groundwater
- 2800 ft. of dense clay
- Groundwater unusable
- 80"/yr. of evaporation
- No groundwater recharge
- No dwellings within 20 miles

Couple those conditions with regulations that prohibit disposal of bulk and containerized liquids and there is no possibility of leachate moving off site. Nothing could be safer, but the cost of a double liner could force the facility to close. And there are four or five other such facilities in the country that would be in the same position. The extremely large volume of hazardous wastes that those facilities can handle would be directed to landfills in areas of high groundwater, high rainfall and much higher population, if no variance is allowed.

We urge you to encourage, rather than negating, such exceptional sites. S757 should be changed accordingly.

Respectfully,

Hugh Mullen

Hugh Mullen
Director, Government Relations

STATEMENT OF

GEOFFREY STENGEL, JR.

Mr. Chairman, Members of the Committee, my name is Geoffrey Stengel, Jr. I am President of Envirite Corporation.

My message is that hazardous wastes can and must be treated before they are disposed of in a landfill or discharged into a municipal sewer system. The present EPA approach of requiring minimum design and management practices for land disposal facilities, but not to require treatment, will not protect human health and the environment. Prevention is needed, not after-the-fact clean-up. Safe treatment beforehand is necessary, affordable, available and must be mandated by Congress.

We should not impose on future generations avoidable health risks and environmental remedial costs because EPA and Congress have given today's generators of hazardous wastes unfettered discretion to mismanage their wastes, constrained only by economics and a prohibition on "midnight dumping." Congress must exercise its responsibility to protect the long-term public interest. The landfilling of hazardous wastes must be minimized. Affirmative responsibilities must be placed on hazardous waste generators so that wastes are rendered non-hazardous before landfilling, lagooning, or deep well injection.

The undesirability of the present practices of land disposal of hazardous waste was recently confirmed again by the Office of Technology Assessment and by the National Academy of

Science's National Research Council. A hierarchy of alternative hazardous waste management strategies must be incorporated into the Solid Waste Disposal Act (RCRA) to enable, as the Council stated, "rational decisions to be made, best risk solutions to be identified, and better public understanding of the issues." Both reports, and Envirite, recommend a hierarchy that would make waste reduction (volume and toxicity) and recovery/recycling the highest priorities, with treatment of the wastes the second line of defense. Land disposal should be allowed only for certain suitable wastes, i.e., residuals from waste treatment operations, pretreated (or stablized) wastes, untreatable wastes, and relatively low-hazard (and other high volume) wastes.

Envirite treats hazardous wastes to make them non-hazardous. Present law and regulation allow generators to avoid entirely the treatment of hazardous waste, and do not even require that landfilling reduce to the minimum the risk to human health and the environment from untreated hazardous wastes. This is unacceptable and should be tolerated no longer.

Envirite, for the past seven years, has been in the business of collecting, transporting, and treating metal finishing wastes and certain other wastes that are principally contaminated by inorganic constituents. We collect these wastes from generators and transport them in special tankers to one of our four treatment plants, which are located in York, Pennsylvania; Canton, Ohio; Thomaston, Connecticut; and Harvey, Illinois.

We are employing state-of-the-art treatment technologies and management methods to convert toxic and hazardous wastes to nonhazardous wastes prior to their ultimate disposal. EPA has granted Envirite a "delisting" of the sludges produced from this treatment process. In addition to passing the EP Toxicity Test, the Company's slude also has passed an extremely comprehensive analysis for the much broader grouping of 129 "priority pollutants" defined by the Clean Water Act. Envirite also produces a treated wastewater effluent that conforms with the effluent limitation guidelines and pretreatment standards proposed by EPA for inclusion in or amendments to 40 CFR Parts 413 and 433 (47 Fed. Reg. 38462).

LAND DISPOSAL OF HAZARDOUS WASTES MUST BE RESTRICTED

Envirite contends that it is technologically and economically feasible for all persons who manage metal finishing wastes to provide comparable treatment results before ultimate disposal. Envirite further contends that such level and type of pretreatment is not discretionary. Pretreatment is "necessary to protect human health and the environment" and therefore is mandated by RCRA. Allowing land disposal of untreated hazardous metal finishing wastes at sites conforming to current design and management standards is not adequate to protect human health and the environment.

The Problem

Of the 28-54 million metric tons of hazardous wastes generated annually in this country, about 40 percent are inorganic in nature. Most of these wastes are generated by metal finishing operations such as etching, electroplating, electrolessplating, cleaning, and heat treating. We estimate that about 20 percent of these wastes, or 2.24-4.32 million tons of inorganics, are disposed of off-site in landfills, injection wells and other commercial establishments. The toxic pollutants primarily consist of cyanide, chromium, cadmium, lead, nickel, copper, and zinc compounds. Once placed or discharged into the environment, these wastes accumulate and persist forever. Most metal finishing wastes and sludges have been listed by EPA as hazardous wastes.

When disposed on the land, these toxic pollutants are quite soluble and readily leach into the environment. EPA land disposal regulations will not be effective to assure long-term confinement of metal-finishing and other hazardous wastes placed in land disposal facilities, and therefore do not fulfill the RCRA mandate to regulate "as necessary to protect human health and the environment."

Even EPA acknowledges that the facility design and management practices now required of land disposal facilities under 40 CFR Parts 264 and 265 may not, in many cases, be sufficient to prevent or adequately reduce the potential adverse human health and environmental impacts posed by the land disposal, storage, or treatment of metal finishing wastes.

Specific deficiencies include:

- Landfills and surface impoundments with interim status are not required to have liners or leachate collection systems. The leachate generated can carry into the environment significant amounts of the soluble toxic metals and other contaminants typically found in metal finishing wastes. Even if issued permits, these interim status landfills will not be required to retrofit with liners and leachate collection systems to prevent or control leachate exfiltration. Only a lateral expansion of an existing interim status facility that isn't exempt under the "existing portion" loophole will be subject to liners and leachate collection systems.

- New land disposal facilities will be subject to the new liner and leachate collection system requirements. The new standards are not fail-safe in actual implementation because of potential flaws or damage in the installation of liners, malfunctioning of the leachate collection system, inherent problems in the sampling and monitoring requirements, and the exemption of double liners with leachate collection systems for groundwater monitoring requirements.

Given the significant quantity of these wastes generated and disposed of annually, the high concentration of the toxic pollutants in these wastes, and the non-degradable, persistant nature of these contaminants, it is clear that the mandate of RCRA to regulate as "necessary to protect human health and the environment" is not being achieved.

Envirite therefore has petitioned EPA to require owners and operators of facilities that dispose of, treat, or store certain metal finishing wastes in a landfill or surface impoundment to pretreat such wastes to produce a stabilized, non-hazardous waste and clean wastewater effluent.

Congress Must Restrict Land Disposal

Envirite urges that Congress amend RCRA to achieve the same general objective as sought by Envirite: The treatment of hazardous waste to convert these wastes from hazardous to non-hazardous wastes, before land disposal. We think a statutory requirement to treat hazardous wastes is needed now.

We know that metal finishing wastes are hazardous and must be regulated under RCRA and the Clean Water Act. We know that the allowable management practice of land disposal of untreated wastes may not be protective of human health and environment and therefore does not meet the RCRA mandate. We know that, in California, before its new law, 75 percent of the waste landfilled could be recycled, treated or destroyed. We know that the present bias in favor of land disposal is a disincentive to the development of new treatment technologies. We know from the California experience that the additional cost of treatment will have a minimal effect on industry. We know that without strong government regulation and effective enforcement, land disposal costs will not be internalized and will retain a competitive advantage over treatment. We know that requiring positive, up-front treatment of metal finishing wastes produces a stabilized, non-hazardous waste for safe land disposal, and a clean wastewater effluent that complies with the Clean Water Act. We know that requiring treatment will provide a more efficient and cost effective integration of RCRA and the Clean Water Act, as required by Section 1006.

Envirite is sensitive to the concerns of Congress about intruding into technical areas within the domain of a regulatory agency. We think, however, that enough is known about the environmental dangers from the land disposal of untreated metal finishing and other hazardous wastes. Since regulations consistent with Envirite's petition are already in effect or proposed, Congress would be well justified in statutorily requiring that these wastes be pretreated.

S. 757, the "Solid Waste Disposal Act Amendments of 1983," provides a general mandate to EPA to develop regulations, starting one year from enactment, to prohibit one or more methods of land disposal for certain hazardous wastes, as specified by EPA. The standard is whether it may reasonably be anticipated that one or more methods of land disposal will not be protective of human health and the environment, taking into account the persistence, toxicity, mobility, and propensity to bioaccumulate of such hazardous wastes.

The bill that has been reported from the House and Energy and Commerce Committee, H.R. 2867, also requires the Agency to restrict land disposal, but provides more direction to EPA. While Envirite supports S. 757, we think that it does not go far enough.

Envirite respectfully urges this Committee to adopt a program to restrict land disposal of hazardous wastes that provides for the following elements:

(1) A hierarchy of waste management practices, with land disposal of hazardous waste clearly the least desirable practice.

(2) Land disposal should be allowed only where alternative treatment, recovery, or disposal methods are not technologically available, or will not be available within a specified time. Availability should consider treatment capacity that exists, considering the nation as a whole, not just a small geographic region.

(3) Land disposal also may be allowed for certain wastes where one or more methods will be protective of human health and the environment, considering the objective of minimizing land disposal and encouraging proper management in the first instance, the long-term inability of land disposal to contain certain hazardous wastes and the uncertainties and costs of future cleanup.

The inherent characteristics of each hazardous waste should be considered. Wastes which are highly persistent, toxic, mobile or bioaccumulative should not be allowed to be land disposed unless the method will assure that it will be contained for an adequate duration, that it will not be a threat to human health and the environment, and that land disposal will be consistent with the goals and objectives of minimizing land disposal and appropriate management in the first instance. Envirite believes that if a hazardous waste can be treated, it must be treated. Where there is no alternative to land disposal, e.g., heavy metals, such wastes should be pretreated as a precondition to land disposal.

(4) A Congressionally-mandated schedule for rulemaking is essential. The EPA, naturally, prefers Congress to delegate maximum discretion without such contraints as deadlines. Experience has shown that all too often this means inaction. Deadlines and a schedule for action enable the regulated community to plan for preparing process changes or identifying or developing alternative treatment capacity. The Agency also needs the external discipline that a schedule for regulations can produce.

H.R. 2867 establishes several regulatory schedules. First, the Agency, within one year from enactment, is to review and determine whether to prohibit or allow land disposal of those hazardous wastes as presently regulated by the State of California. Second, within six months of enactment, the

Administrator is to provide a Report to Congress that specifies a schedule to review and make determinations to restrict land disposal of hazardous wastes listed under 40 CFR 261.31 and 261.32, wastes from non-specific and specific sources. This review is to be phased over four years. Finally, the Administrator has 54 months to review and make regulatory determinations on all other wastes.

This is not an unreasonable schedule, particularly for regulating listed wastes. EPA could expedite this process by granting Envirite's petition to require pretreatment of metal finishing wastes prior to land disposal. That would reduce the wastes to be reviewed by at least ten percent. In addition to metal finishing wastes, there are twelve specific source groupings of listed wastes, and five generic waste streams, of which two are halogenated solvents and three are non-halogenated solvents. The Agency would be reviewing these specific groups of wastes with common characteristics; it would not be making 80 separate decisions. The decision on the priority for review would be entirely EPA's.

Envirite supports the provision in H.R. 2867 that specific hazardous waste be prohibited from land disposal if EPA fails to act on schedule. The determination has been made by Congress that land disposal is the least desirable management practice. It is therefore appropriate for Congress to prohibit land disposal where EPA can't or won't make a determination that land disposal is environmentally acceptable.

Finally, Envirite strongly supports the provision in the House bill for pretreatment or detoxification of hazardous wastes as a precondition to land disposal. Pretreatment under RCRA should be coordinated wth the pretreatment requirements of the Clean Water Act. For example, the standards in Envirite's RCRA pretreatment petition are consistent with the proposed metal finishing category pretreatment and effluent guideline standards under the Clean Water Act.

Is it necessary for the nation to wait years for EPA to require treatment of metal finishing and other hazardous wastes? Experience shows that EPA has failed to meet statutory deadlines or to respond in a timely way to petitions. Congress must take the initiative and establish a program to restrict untreated wastes from landfills and other land disposal methods.

CLOSE THE DOMESTIC SEWAGE LOOPHOLE

Envirite recently submitted testimony for this Subcommittee's hearings on the Clean Water Act, pointing out that industrial dischargers into a POTW are now exempt from RCRA regulation under EPA's "domestic sewage" loophole. Section

1004(27) of RCRA specifically excludes from the definition of "solid waste" any solid or dissolved material in domestic sewage. EPA has interpreted legislative intent to include within the "domestic sewage" exemption mixtures of sanitary wastes and other wastes, including industrial discharges, that pass into POTWs. If it is not a "solid waste", the material cannot be a "hazardous waste" regulated under RCRA. EPA justified deferring RCRA regulation by relying on two programs under the Clean Water Act: (1) the pretreatment program "to insure that users of sewer and treatment systems do not dump wastes into the system that will present environmental problems", 45 Fed. Reg. 3309 (May 19, 1980), and (2) the construction grants program to provide financial assistance for building waste treatment facilities.

This reliance is misplaced.

OTA estimates that 5 million metric tons of toxic wastes are being discharged into POTWs without pretreatment. Many POTW's are unable to properly treat these wastes. The result is that the pollutant is either discharged as part of the effluent from the POTW, or transferred to the sewage sludge. The sewage sludge may be a hazardous waste under present regulations. However, it may not exhibit any of the requisite characteristics and still may pose a significant threat to human health and the environment.

Envirite or any other treatment company can never compete with a free, government-granted license to pollute! Envirite urges this loophole be closed now. Further study is unnecessary and will frustrate the goals of RCRA and the Clean Water Act.

Let me illustrate our concerns with this loophole by using the metal finishing industry, with which Envirite is most familiar. The metal finishing industry generates over 85,000 metric tons/year of toxic pollutants, of which 61,000 are discharged into POTWs. The POTW is unable to treat these inorganic wastes. Instead, the predominantly liquid process wastes are dewatered, leaving the toxic metals in the resulting sewage sludge. The sludge is then land disposed or dumped in the ocean. Unlike organic compounds, these inorganic and heavy metal toxic wastes do not degrade in the environment. They are readily leachable and carried into the environment.

EPA has promulgated and proposed effluent guidelines, new source performance standards and categorical pretreatment standards under the Clean Water Act which are designed to substantially reduce the toxic constituents discharged by the metal finishing industry into surface waters, either directly through point sources or indirectly through discharges into POTWs. If not weakened, this will prevent the contamination of the POTW sludge with metal finishing wastes, making it far more acceptable for land spreading or ocean dumping. Unfortunately, this program, particularly the pretreatment component, is not in place.

But the RCRA domestic sewage exemption assumes that the pretreatment requirement is in place and is working. It is time to end the unrestricted RCRA exemption for industrial discharges into POTWs.

Envirite recommends that Congress close this loophole. Only if a categorical pretreatment standard is in effect and is being implemented by the local agency under the Clean Water Act should an industrial discharge into a POTW qualify for the RCRA domestic sewage exemption.

CONCLUSION

Hazardous wastes present an enormous challenge for this country with respect to both human and economic health. Managing hazardous wastes for the protection of human and economic health requires, in our view, a three-part strategy. First, to encourage industry to find ways to generate less waste. Second, to encourage industry to recover and/or recycle as much waste as possible. Third, for wastes that must go into the environment, to require such wastes to be treated and neutralized so that no harm can come to the environment upon disposal. This third part is where Envirite fits into the equation.

Envirite provides a treatment alternative, and we are very good at it. We do this despite the uncertainties of federal regulation and the institutional and economic biases against treatment. Envirite and others engaged in hazardous waste treatment have acted boldly and responsibly to provide a public service that protects human health and the environment.

Envirite has a commitment to the environment that we know this Committee shares. We look to Congress to renew its commitment, to close the RCRA loopholes, to assure that hazardous wastes are properly managed and treated before being landfilled. The Solid Waste Disposal Act requires that EPA regulate "as necessary to protect human health and the environment." We hope Congress, in its reauthorization of RCRA, will adopt the legislation "necessary to protect human health and the environment."

STATEMENT
ON BEHALF OF
NATIONAL ASSOCIATION OF MANUFACTURERS
"REAUTHORIZATION
OF THE
RESOURCE CONSERVATION AND RECOVERY ACT"
SUBCOMMITTEE ON ENVIRONMENTAL POLLUTION
COMMITTEE ON ENVIRONMENT AND PUBLIC WORKS
UNITED STATES SENATE
JUNE 23, 1983

This statement is submitted on behalf of the National Association of Manufacturers, a voluntary association of more than 13,000 enterprises engaged in manufacturing in the United States. An additional 158,000 enterprises are affiliated with NAM through its Associations Department and the National Industrial Council. The great majority of these enterprises are small businesses. Most of them, large and small, are directly and substantially impacted by the Resource Conservation and Recovery Act (RCRA) and its voluminous and intricate implementing regulations. We appreciate the opportunity to comment on the pending reauthorizaton of RCRA. We submit this statement in lieu of the opportunity to testify at the June 9, 1983 hearings.

Small Generators

Regulation of solid waste management under RCRA is of great concern to all those businesses and industries, large and small, which currently comply with hazardous waste disposal requirements and particularly to those who may be brought under regulations from which they are presently exempt due to the minimal quantities of waste that they generate.

It is not only this regulation of small quantity generators of hazardous waste under Section 4 of S.757 which NAM will address in this brief statement, but also the question of land disposal limitations under Section 5 of the bill and the necessity of providing for reauthorizing RCRA every two years rather than extending that period to four years.

NAM wholeheartedly supports the objectives of S.757; safe handling, transportation, treatment, storage and disposal of hazardous waste. Methods adopted for such handling and treatment and those laws designed to regulate such handling and treatment must ensure the safety of human health and the environment. In line with this paramount need for safety in the treatment and handling of hazardous waste is NAM's recognition of the fact that regulations governing small quantity generators must provide for industry specific variations from the regulations covering large quantity generators. A minimization of compliance costs for these small generators, and thus, maximum capability for them to comply is inherent in a flexible approach to hazardous waste disposal requirements for those businesses generating less than 1000 kilograms of hazardous waste per month. An added benefit of a self-enforced program of identification, segregation and notification of hazardous waste being shipped by a generator of less than 1000kg/month (but more than 100kg/month) to the transporter is a minimization of government costs involved in enforcing a complicated and burdensome regulatory scheme which would result in minimal recovery of wastes in any event, given the small percentage of waste generated by these small businesses.

Land Disposal

Under Section 5 of S.757, the Administrator is directed to promulgate regulations limiting the disposal of certain hazardous wastes in landfills "which contain significant concentrations of halogenated organic compounds or on which any state or interested persons petitions the Administrator for a prohibition under this subsection..."*

It is of great concern to the NAM and those small businesses which it represents that such a regulation could result in unreasonable restrictions on land disposal. While other organizations testifying before this subcommittee have expressed the view that qualifying language inserted in Section 5 would prevent a prohibition against land disposal of products commonly used in food and medical items (and therefore quite safe), NAM feels that merely modifying the language is not sufficient. In permitting "any states or interested persons to petition the Administrator for a prohibition..." of any given waste component, the result could be unreasonably excessive restrictions on land disposal, leaving small (and in some instances, larger,) generators without alternative means of disposal; they would be faced with fantastic costs in efforts to comply with the regulations to be imposed.

* Proposed Section 3004(b) of Solid Waste Disposal Act

Extending Reauthorization

NAM also feels that it is imperative that reauthorization of the Resource Conservation and Recovery Act (RCRA) be limited to a period of two years rather than the four proposed in the pending legislation; it is crucial that Congress continue its oversight of a law in which changing technology and economic conditions can affect compliance so drastically.

Citizen Suit Amendment

We concur with the Justice Department that a loosely worded citizen suit provision would be counterproductive to the objectives of RCRA by "inviting adverse or confusing judgements." Our view is that litigation policy under a Federal statute should be under the purposeful and coordinated guidance of the Department of Justice rather than left to the vagaries of professional or amateur litigators. We join the Department in urging deletion of Section 16 of S.757.

NATIONAL ASSOCIATION OF RECYCLING INDUSTRIES, INC.
330 MADISON AVENUE / NEW YORK, N.Y. 10017 / (AREA CODE 212) 867-7330

March 1, 1983

Honorable Robert T. Stafford, Chairman
Committee on Environment and Public Works
133 Hart Senate Office Building
Washington, D.C. 20510

Attention: Ms. Josephine F. Cooper

Re: RCRA Reauthorization Legislation

Dear Mr. Chairman:

The National Association of Recycling Industries, Inc. (NARI) is the trade association for the nation's metals, paper, textile and rubber recycling industries. Its membership consists of more than 1200 member firms located throughout the United States, all of which are engaged in the collection, processing and domestic industrial utilization of recyclable metals, paper, textiles and rubber. Obviously, therefore this association and its entire membership have a deep continuing interest in all provisions of RCRA which were enacted to promote the industrial utilization of recyclable materials, and in other provisions of the RCRA regulatory process which were designed to distinguish and separate beneficial industrial recycling activities from those of industrial polluters who conduct hazardous waste disposal activities under the guise of recycling.

It is our understanding that, in the near future, your committee will conduct hearings on the RCRA reauthorization legislation. Accordingly, since we have several vitally important proposals to make with reference to RCRA and the regulations the Environmental Protection Agency has promulgated, or is in the process of promulgating thereunder, we feel it is absolutely imperative that we be permitted to testify before

Honorable Robert T. Stafford, Chairman
Page Two (2)
March 1, 1983

your committee during any hearings that might be scheduled later this year on these subjects.

If this request is granted, we promise to keep our testimony as brief as possible and not to duplicate any testimony given before the committee by other witnesses.

Looking forward to your advice as to when the aforesaid hearings might be held and when our testimony might be scheduled, I am

Sincerely,

National Association of
Recycling Industries, Inc.

By:
Edward L. Merrigan, Counsel
6000 Connecticut Avenue, N.W.
Washington, D.C. 20815
Telephone: 656-0210

ELM:ljs

NFIB National Federation of Independent Business

1983 NATIONAL CONFERENCE NFIB

STATEMENT

SUBMITTED BY

NATIONAL FEDERATION OF INDEPENDENT BUSINESS

Sumbitted to: Subcommittee on Environmental Pollution of the Senate Committee on Environment and Public Works

Subject: Solid Waste Disposal Act Amendments of 1983 (S. 757)

Date: June 9, 1983

Mr. Chairman, NFIB, on behalf of its more than 500,000 small and independent business members, appreciates this opportunity to submit our comments on the proposed legislative changes to the Resource Conservation and Recovery Act and the hazardous waste management program. We commend the Chairman for holding this hearing on S. 757, as recently introduced by the Chairman, Senator Jennings Randolph, on March 10, 1983.

NFIB believes that sound environmental management of hazardous waste is essential. Small business is prepared to do its fair share to achieve proper hazardous waste controls and assure human health and safety. Small business owners want to dispose of their wastes properly, but many of them are not aware they are generators and do not know how or where to dispose of their waste.

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The Resource Conservation and Recovery Act (RCRA) (Public Law 94-580, 90 Stat. 2795, Oct. 21, 1976) was enacted as an amendment to the Solid Waste Disposal Act in 1976. RCRA established this nation's basic hazardous waste management system from generation to final disposal under Subtitle C of the Act. RCRA requires the identification and listing of hazardous waste, a national manifest system for tracking wastes, standards for hazardous waste management, treatment, storage, and disposal facilities, and a permit system for treatment, storage, and disposal facilities.

Since RCRA's enactment in 1976, and particularly today, attention and expectation has been focused on the Subtitle C program. The course of implementation to date has demonstrated that the task of comprehensive hazardous waste management is one of unparalleled scope and complexity.

In May 1980 the Environmental Protection Agency (EPA) promulgated its first major package of regulations to implement Subtitle C (Phase I). These regulations required waste identification, manifesting, transportation, and interim status treatment, storage, and disposal requirements. The EPA also promulgated a regulation, later codified at 40 C.F.R. 261.5, which excluded from most RCRA requirements small quantity generators who generate up to 1,000 kilograms (2,200 lbs.) per month of hazardous waste. Small quantity generators were allowed to dispose of their wastes into either a licensed sanitary landfill or into sewer lines which are connected to publicly owned treatment works. Such generators are not required to manifest, transport, treat, or maintain records for the wastes they generate.

To qualify for the small quantity generator exemption, generators must not generate or accumulate more than a specified amount of hazardous waste each month. The small quantity limits are:

- No more than 1 kilogram per month for acutely hazardous waste,
- No more than 100 kilograms per month of any residue or contaminated soil, water, or other debris resulting from the cleanup of any spill of any acutely hazardous waste; or
- No more than 1,000 kilograms per month of any other hazardous waste.

In addition, the small generator must either treat or store the hazardous waste in an onsite facility or ensure delivery to an approved offsite storage, treatment, or disposal facility. This offsite facility must be a facility that has interim status or is permitted under the Federal RCRA program or an authorized State program, a State-approved municipal or industrial solid waste facility (Subtitle D facility), or a facility that beneficially uses or reuses or legitimately recycles or reclaims the waste or treats it before such reuse or recycling.

Since our testimony is directed at the problem of the small quantity generator, let us examine who those small generators might be. A constant source of debate concerns how many small generators produce how much of the hazardous waste. For example, it has been estimated conservatively that if the threshold of 1,000 kilograms per month was reduced to 100 kilograms per month, at least an additional 130,000 businesses would be regulated, including gas stations, dry cleaners, auto repair shops, and small manufacturers. Those 130,000 firms contribute only 1% of the total hazardous waste, while the remaining 99% is contributed by 60,000 large generators.[1] NFIB believes that no one is certain of the actual number of businesses which will be impacted. We do know, however, that at least those 130,000 firms, if not now, will face restrictive regulations if the small generator exemption is excluded.

Some of those small generator firms, who would be significantly affected by lowering the threshold for the small quantity generator, should have been afforded the opportunity to testify before this Subcommittee. Their voice must be heard if you intend to enact legislation which will directly impact their business and even their lives. Even today, many of these business owners are only now becoming fully aware of RCRA and Congress' attempts to alter the small quantity exemption.

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[1] Statement by Joseph G. Gerard on Resource Conservation and Recovery Act (RCRA) before the Subcommittee on Commerce, Transportation and Tourism of the House Energy and Commerce Committee for the Chamber of Commerce of the United States, March 24, 1983, pp. 2-3.

The direct cost of implementing and operating the proposed regulatory system as envisioned by Senate Bill 757 and its counterpart in the House, H.R. 2867, will be excessive for small business owners, who are not wealthy people as a group.[2] How will the proposed law affect one small businessman? A retail dry cleaner generates about 125 kilograms of hazardous waste per month. The estimated cost of disposal at an approved landfill for this type of waste, under the full operating conditions of RCRA Subtitle C regulations, ranges from $4,300 to $7,200 per year.[3] Dry cleaning plants, service stations and other small businesses are prime candidates for closure if faced with such high costs.

NFIB's members have been frequently polled on problems affecting their small businesses. In each poll, excessive regulatory and paperwork burdens have ranked high on their list of business problems. There is no question that the proposed changes to RCRA will exacerbate the problem. A small businessman's productive

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2/ The Census Bureau has reported that the median income of self-employed males is $1,800 less than male wage and salary earners. See U.S. Bureau of the Census, Current Population Reports, Series P-60, No. 101, "Money Income in 1974 of Families and Persons in the United States," U.S. Government Printing Office, Washington, DC, 1976, p. 139.

3/ Letter to Senator John Chafee, Chairman, Senate Environmental Pollution Subcommittee, for submission to the hearing record, June 30, 1982, from International Fabricare Institute, enclosing written comments and "Summary of Effects on Retail Dry Cleaning of A Reduction of the Small Generator Exemption to 100 Kilograms per month."

office hours will be absorbed by the additional paperwork on small generator matters in addition to his attempt to understand the highly technical and complex environmental laws. Small business owners do not have the resources to hire legal counsel or knowledgeable consultants to advise them on hazardous waste disposal problems.

Mr. Chairman, your Subcommittee is examining S. 757, the Solid Waste Disposal Act Amendments of 1983, which proposes to include small generators of hazardous waste under extensive EPA regulations. NFIB strongly objects to the bill's repeal of the small generator exemption. S. 757 requires that all small generators generating less than 1,000 kilograms per month would have to comply with specific reporting requirements at the time the hazardous waste is transported off the business premises. The waste must then be transported to a specified landfill in specified containers within 180 days. To comply with the requirements of S. 757, the small businessman must be prepared to face hauling, insurance, storage, and paperwork expenses.

The Senate's counterpart in the House, H.R. 2867, the Hazardous Waste Control and Enforcement Act of 1983, proposes to lower the small generator threshold from 1,000 to 100 kilograms (220 lbs.) per month. Within 90 days after the enactment of H.R. 2867, small generators generating greater than 25 kilograms but less than 1,000 kilograms per month would be required to provide the transporter of the generator's waste with a manifest form which would contain specific information about the generator and the hazardous waste.

Like its Senate counterpart, H.R. 2867 permits the onsite storage of hazardous waste of less than 1,000 kilograms per month for up to 180 days without the requirement of a permit. Unlike S. 757, which allows 6 months to educate the small business community about its responsibilities under the hazardous waste laws, H.R. 2867 provides for only 90 days within which small business owners may be educated on the intricacies of the hazardous waste laws. H.R. 2867 imposes a penalty of as much as $25,000 per day for violators.

NFIB strongly objects to the small quantity generator regulation which would impose all of RCRA's requirement on companies in the event EPA failed to promulgate regulations within 24 months after enactment of H.R. 2867. If EPA failed to meet its statutory deadline, then all existing hazardous waste regulations under RCRA would apply to any business that generates greater than 100 kilograms per month. Clearly, the small generators are being punished because Congress has set unrealistic deadlines or EPA has failed to act in a timely manner. How will those small generators understand any small quantity generator laws if they are forced to comply with one body of law, then if EPA fails to promulgate a small generator regulation, they must comply with the rules already in effect for the large generator? Would this nightmare of confusion persist if at a later date the EPA promulgated a whole new set of small generator regulations?

NFIB believes that H.R. 2867 will have a tremendous negative impact on small business. S. 757 repeals the small quantity generator exemption, while H.R. 2867 reduces the small quantity threshold to 100 kilograms for onsite storage and kicks in a 25 kilogram per month threshold for hazardous waste which is to be transported offsite. Such a reduction is a drastic move for the small business community, which is ill-prepared to handle such action.

NFIB wholeheartedly supports one provision contained in S. 757--Section 7(A). Section 7(A) would require the Administrator of EPA to conduct a comprehensive study of small quantity generators which generate less than 1,000 kilograms per month to determine allowable levels of small business generated waste. The study would be submitted to Congress not later than two years after the enactment of S. 757. Based on the findings of the study, the Administrator would promulgate regulations for the small quantity generator in the following year. Currently, the EPA is finalizing its survey instrument for its two year in-depth analysis of alternative methods for regulating small quantity generators of hazardous waste under RCRA. The EPA study will be completed in June 1985.

In conjunction with the EPA study which is scheduled to be completed in June 1985, NFIB proposes that the small quantity generator exemption be phased down slowly until the EPA study has been completed. This phased in approach to the lowering of an exemption would not be as drastic as those modifications to the exemption which are contained in the Senate and House bills.

NFIB recommends that the Congress take into consideration the following guidelines at the time of preparation of hazardous waste legislation:

* Educate small generators as to the requirements of federal hazardous waste laws.

* Allow flexibility in hazardous waste identification storage, transport and tracking so that the small generator is not necessarily burdened by complex regulations and procedures.

* Require an appropriate study of small generators' waste management practices to determine what level of federal control is necessary to protect the environment before promulgation of regulations.

* Provide for basic identification and segregation of hazardous wastes by small generators when wastes are shipped offsite.

* Small quantity generators must have simplified reporting forms for manifesting. Their forms should not be the same ones currently used by the large generators.

In recalling some of the objectives of RCRA, which are to promote both the protection of health and the environment and to conserve valuable material and energy resources, NFIB realizes that those objectives may be achieved by "providing technical and financial assistance to state and local governments and interstate agencies for the development of solid waste management plans" and by "establishing a cooperative effort among Federal, state and local governments and private enterprise in order to recover valuable materials and energy from solid waste." In that spirit of cooperation, NFIB believes that a state-wide assessment of small generators should be conducted at the local government level. Such an inventory would determine where the small generators are located and how much waste is actually generated. Florida's Leon County has just completed such an assessment. Further, states should establish "transfer holding sites" if there is no available hazardous waste site in that state. Such holding sites would serve as a temporary depository for the collection of waste prior to its transportation to a hazardous waste site in another state.

In those states which do not currently possess a hazardous waste facility site, both S. 757 and H.R. 2867 offer no solution to that dilemma. Direct Federal involvement in hazardous waste siting is virtually non-existent. Some general site location standards are included in the few EPA regulations which have addressed the siting issue, and the Agency has published a few reports describing the nature of siting problems. The EPA should publish model siting criteria as well as a compilation on the different approaches states have taken to the siting issue. The Federal Government should also provide states with hydrogeologic information necessary to determine the suitability of locations for waste management facilities.

Section 3005 of RCRA gives EPA the authority to establish location standards for hazardous waste facilities.

Imposing rigorous regulatory requirements on businesses would accomplish nothing if accessible hazardous waste dump sites are not provided. Locating appropriate sites for waste facilities is a serious problem and should be of paramount priority to the Federal Government. Otherwise, the imposition of a reduced threshold for the small quantity generator would impose a costly burden on small businesses without the benefit of a solution to the siting problem.

NFIB has appreciated this opportunity to share with you the views of our members on this issue of small generators and our guidelines for an alternative way of achieving the necessary environmental protection. NFIB hopes that these hearings will demonstrate to this Subcommittee and full Committee that more thought and planning should be given to the problem of the small generators before enacting sweeping quick-fix legislative changes. Special accommodation must be made for small quantity generators in light of their smaller scale of operation. Phased in modifications to the small generator exemption, to storage, recordkeeping and reporting, accumulations, and container requirements must also reflect this smaller scale of operation.

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Comments
of
The National Oil Jobbers Council

PREFACE

The National Oil Jobbers Council is a federation of 42 state and regional trade associations representing thousands of independent small business petroleum marketers. Members include gasoline and diesel fuel wholesalers, commissioned distributors of gasoline, gasoline reseller-retailers and a large number of retail fuel oil dealers. Members also wholesale or retail many other petroleum products, including kerosene, LP gas, aviation fuels and motor oils as well as residual fuel oil. Together our members market approximately 50 percent of the gasoline and 85 percent of the home heating oils sold in America under either their own private brand or the trademark of their supplier.

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Introduction

As a federation of 42 state and regional associations, the National Oil Jobbers Council represents thousands of small business petroleum product marketers. According to NOJC's most recent survey, over 28 percent of these businessmen and women own or operate approximately 10,000 retail businesses which provide automotive maintenance services to the public. These marketers supply gasoline to an additional 58,000 independent retail service station dealers. NOJC estimates that major oil companies supply an additional 100,000 independent service stations and virtually all 158,000 facilities would provide some form of maintenance service. All of these small businesses would be impacted by S. 757 because of the types of services they offer and because of the variety of substances they use to perform those services. The majority of those functions are repairs or lube oil changes. Currently gasoline retailers dispose of only minimal amounts of materials which are classified as hazardous under RCRA regulations and fall within the current 1,000 kilograms (kg) per month for small quantity generator exclusion. The bulk of these wastes are used oil, spent degreasing solvents, and used batteries, all of which are commonly recycled and can represent a profit center for our members who sell the used materials to reclaimers or recyclers. In many areas these operations actively participate as community recycling centers for used oil. The remainder of the wastes would not be bulk fluids but most likely spent containers of substances used in maintenance operations. Overall, NOJC estimates that independent gasoline marketers beneficially recycle the bulk of their wastes; provide valuable community and environment service by acting as recycling centers for used oil generated by increasing numbers of "do-it-yourselfers;" and dispose of minimal amounts of hazardous waste.

NOJC's Position

First, the Council supports strong and effective environmental management of all wastes. Further, we advocate a reasonable and balanced regulatory approach to safe environment, an approach which encourages and fosters compliance in a framework that eliminates unnecessary and burdensome compliance paperwork and expense. We recognize that it is often difficult to achieve such a balance and wish to commend the Subcommittee for its fairness in evaluating and assessing the concerns expressed by the Council in our testimony last year and in our subsequent discussions with the Subcommittee on behalf of our members.

Second, the Council wishes to commend the Chairman and the cosponsors of S. 757 for developing a flexible approach to the regulation of small generators. Environmental laws are naturally complex, and have resulted in a confusing array of legal and technical puzzles for businesses to work through. Any regulatory scheme must recognize that small businesses do not have on staff the experts to determine the full spectrum of wastes they may be generating nor do they have the financial resources to obtain the expert help they would need from outside consultants. Further, the successful implementation of any small generator regulations will depend on ability of the small generator to understand what he or she needs to do. Not only are there serious questions which must be addressed concerning the ability of small businesses to comply with any new regulatory scheme, but there are also serious questions that must be answered on the scope of the problem created by small generators. While service stations, for example, appear to make up the majority of additional businesses to be regulated, the bulk of their wastes are beneficially reused. It has been estimated that EPA now regulates 99 percent of the total hazardous wastes generated by approximately 66,000 large generators, and that only one percent is generated by small generators. By lowering the current exemption from 1000 kgs down to 100 kgs, EPA would add, at minimum, an additional 130,000 businesses to its current regulatory burden. Without adequate knowledge of the scope, amount and types of waste generated, EPA will not be able to target its enforcement resources effectively nor will it be able to structure a regulatory framework suitable to address the actual problems.

Third, the Council would urge caution in assuming that programs in the states which lower the regulatory exemption to 100 kg or lower are proof that EPA's exemption can be lowered to comparable levels without unduly burdening small business. Several marketers expressed the view that the states had relatively little contact with their operations or had not undertaken an enforcement effort. Others operated in states with specific exemption procedures or special regulatory structure that applied to their activity.

NOJC Recommendations

Any regulatory scheme for small generators should encompass the following principles:

- provide for a program which identifies and segregates wastes and notifies the transporter of wastes in amounts of more than 100 kg and less than 1000 kg/month. Such a program should be largely self enforcing and avoid excessive or extensive regulatory activity;

- require waste transporters to notify the waste disposal facility of the types of wastes it will receive and require that the wastes are taken to the appropriate waste facility;

- allow compliance flexibility for small businesses to reflect the wastes being generated and the inability of the small business to comply with the same regulations and procedures which apply to large generators;

- encourage reuse, recycling, energy recovery, and procedures which transform a hazardous substance into environmentally benign materials. As more and more "do-it-yourselfers" change their own motor oil, it is critical that federal and state regulations encourage small businesses to function as local collection centers for used oils.
- identify more precisely the types of waste disposal practices currently used by small generators and determine the proper level of regulation which may be needed to protect human health and the environment;
- educate small businesses and the public on proper waste disposal and recycling procedures.

Conclusion

NOJC would like to again commend the Chairman and members of the Committee for your efforts at embodying many of these principles into S. 757 and we would again emphasize that a cutoff of 100 kg a month would be adequate to capture the vast majority of wastes being generated. Such a cutoff would retain a balance between sound efforts to protect the environment and minimum burden on small generators. And such a program would insure maximum compliance with a degree of efficiency for the small generator and enforcer alike.

MEMBERS OF THE NATIONAL OIL JOBBERS COUNCIL

NOJC represents these member associations:

Alabama Petroleum Marketers Association
Arizona Oil Marketers Association
Arkansas Oil Marketers Association, Inc.
California Independent Oil Marketers Association
Colorado Petroleum Marketers Association
Independent Connecticut Petroleum Association
Florida Petroleum Marketers Association
Georgia Oilmen's Association
Idaho Oil Marketers Association
Illinois Petroleum Marketers Association
Indiana Oil Marketers Association, Inc.
Intermountain Oil Marketers Association
Petroleum Marketers Of Iowa
Kansas Oil Marketers Association
Kentucky Petroleum Marketers Association
Louisiana Oil Marketers Association
Maine Oil Dealers Association
Michigan Petroleum Association
Mid-Atlantic Petroleum Distributors Association, Inc.
Mississippi Petroleum Marketers Association
Missouri Oil Jobbers Association
Montana Chapter, Intermountain Oil Marketers Association
Nebraska Petroleum Marketers Inc.
Independent Oilmen's Association of New England
Fuel Merchants Association of New Jersey
New Mexico Petroleum Marketers
Empire State Petroleum Association
North Carolina Oil Jobbers Association
Northwest Petroleum Association
Ohio Petroleum Marketers Association
Oklahoma Oil Marketers Association
Oregon Oil Jobbers Association
Pennsylvania Petroleum Association, Inc.
South Carolina Oil Jobbers Association
South Dakota Independent Oilmen's Association
Tennessee Oil Marketers Association
Texas Oil Marketers Association
Virginia Petroleum Jobbers Association
Washington Oil Marketers Association
West Virginia Oil Jobbers-Distributors Association
Oil Jobbers of Wisconsin, Inc.
Wyoming Petroleum Marketers Association

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COMMENTS OF PHILIP P. FRIEDLANDER, JR.

EXECUTIVE VICE PRESIDENT
NATIONAL TIRE DEALERS AND RETREADERS ASSOCIATION
Submitted to
THE COMMITTEE ON ENVIRONMENT AND PUBLIC WORKS
UNITED STATES SENATE

My name is Philip P. Friedlander, Jr., Executive Vice President of the National Tire Dealers and Retreaders Association, a national nonprofit trade association representing approximately 5,000 independent tire dealers and retreaders located in fifty states who are engaged in the wholesale and retail distribution of automobile and truck tires, the retreading of tires and the sale of related products and services.

Mr. Chairman, we submit to you today the following comments to support, and to further clarify in S.757, the Solid Waste Disposal Act Amendments of 1983, a recycling of tires proposal included in the companion bill H.R. 2867, the Hazardous Waste Control and Enforcement Act of 1983. Currently S.757 does not address this issue.

The House Committee on Energy and Commerce, in Section 23 of H.R. 2867, sets forth language requiring Federal agencies to establish procurement guidelines which would include recovered material preference programs and promotion programs. Agencies would be directed to conduct annual reviews to assure "that items composed of recovered materials will be purchased to the maximum extent practicable."

Current House language specifically labels "tires" as a product category to be addressed by Federal agencies in the development of procurement guidelines.

We believe that the words "including tires" on page 55, line 12, as part of paragraph C "Guidelines," should be amended to delineate "scrap tires" and "retreaded tires." In the ensuing committee report language could be included to explain the intent of the new terminology.

Suggested language in the report might be as follows: "Since the purpose of Section 24 (h) under "Use of Recovered Materials by Federal Agencies is to encourage use of recovered and recycled materials by the Federal Government and since (2) (A) on page 53 requires each Federal procuring agency to develop a recovered materials preference program, retreaded tires should be included in each agency program." This would be in line with established Federal policy since both the U.S. Department of Energy and the Environmental Protection Agency have recognized retreading of tires as an effective means of resource recovery and reducing waste.

Additional language should be included in the committee report explaining that "tires no longer suitable for retreading could be processed for use in asphalt materials for road construction and maintenance." This is also in line with existing Federal policy as established by the Surface Transportation Assistance Act of 1982.

NTDRA supports the specific inclusion of retreaded tires into Federal procurement guidelines for the following reasons:

(1) Tire retreading recovers great amounts of solid waste.

(2) Both the Department of Energy and the Environmental Protection Agency have defined the retreading of tires to be the recycling of tires.

(3) The Department of Energy and the United States Congress recognize a need to stimulate the retreading industry.

(4) Tire retreading is a long-standing recycling industry, conserving oil and rubber.

(5) Retreading represents a practicable and meaningful way that small business people can aid the country by undertaking a major recycling program.

(6) Tire retreading recovers substantial amounts of rubber polymer.

Each of these points is discussed below:

1. Tire retreading recovers great amounts of solid waste.

Roughly 175 million new tires and 50 million retreads were sold in the replacement tire market in 1979. That means approximately 225 million worn tires were taken out of service and replaced with either a new or retreaded tire. In addition, new cars, trucks, and buses, were equipped with about 62 million new tires in 1979 -- 51 million passenger tires and 11 million truck-bus tires. On average, scrapped automobiles account for about 70 percent of those sold, and scrapped trucks and buses account for about 40 percent of sales.

Therefore, about 36 million passenger tires and 4 million truck-bus tires were taken out of service on scrapped vehicles. In total, approximately 260 million tires were potential candidates for disposal as solid waste. One can assume that 40 to 50 million of them will be retreaded -- 15 percent to 19 percent. An additional 10 to 15 percent of the worn out tires will be used for other productive purposes such as reclaimed rubber for recycling into new rubber products, fuel, breakwaters and artificial reefs, dock bumpers, play ground equipment, roadside impact absorbers, and construction materials. The remaining 70 to 75 percent of the worn out tires, about 180 million, must be disposed of in non-productive ways — mainly in landfills. Based on our knowledge of the industry, we estimate oil consumption at about 25 gallons per hundred weight of tires produced -- about 20 gallons for the materials and five gallons in the manufacturing of tires. The total weight of the 180 million tires which were non-productively disposed of in 1979 was approximately 7 billion pounds, representing the consumption of 1.75 billion gallons of oil — 40 million barrels. Forty million barrels of oil were simply thrown away. This solid tire waste must be recycled.

The 650 million plus pounds of tread rubber consumed in the production of the 50 million retreads sold in 1979 provided the equivalent service of 2.3 billion pounds of new tires. At 20 gallons per hundredweight of tires, the oil savings from raw material production alone was 330 million gallons -- more than 20 thousand barrels per day. Additional energy savings were realized during the manufacture of retreads versus new tires. With the current product mix of passenger, truck and other retreads, the average oil savings in raw materials alone for a retread over a new tire is about seven gallons per tire -- a 70 percent savings. Retreading is recycling of a solid waste; it saves energy, and Congress should give consideration to supporting government procurement of retreaded tires in order to increase the use of potential solid waste.

2. Both the Department of Energy and the Environmental Protection Agency have defined the retreading of tires to be the recycling of tires.

NTDRA concurs with the findings and philosophy of the United States Department of Energy in its recently completed final report, Industrial Recovered Materials Utilization Targets for the Rubber Industry, that "retreading is the most obvious form of tire recycling" Book II (p.II-55). The document was prepared by Hittman Associates, Inc. under the direction of the Office of Industrial Programs, Office of the Assistant Secretary for Conservation and Solar Energy, United States Department of Energy. To quote from the introduction, "The analysis and determinations indicated in this document have been used as a basis for recovered material utilization targets for the rubber industry. These targets are required to be established by Section 374A of the Energy Policy and Conservation Act." Thus in the most recent instance in which a federal agency has had to determine Congressional intent as it relates to retreading, it was clearly defined to be recycling.

The Environmental Protection Agency has long recognized retreading as an effective means of resource recovery and reducing solid waste. In 1973, EPS Contract No. 68-1-2906 was awarded to Smithers Scientific Services, Inc. to study the feasibility of requiring the federal government to use retreaded tires. The introduction to that report states:

> "More than five billion pounds of discarded tires end up as solid, municipal waste every year. This represents about 1.5 percent of the total solid waste disposed of annually . . . Obviously, one way to reduce this solid waste problem is to increase the percentage of tires being retreaded . . . A second benefit to be derived from the increased recycling of tires by retreading will be a reduction in petroleum consumption. Industry sources have estimated that it requires seven gallons of crude oil to make an average passenger tire. Five gallons as raw material feed stock, and two gallons to supply the required energy."

Because two agencies of the federal government are encouraging the increased production of tire retreads, Congress should encourage the federal government to procure retreaded tires when practicable.

3. The Department of Energy and the United States Congress recognize a need to stimulate the retreading industry.

Because it sees the retreading process as a recycling process, the Department of Energy has taken an active leadership role to insure an increase in the number of retreaded tires. The retread industry has had to overcome numerous obstacles over the past few years, and industry figures project an 11.4 percent decrease in sales in 1980 as compared to 1979. In fact, the number of tires that have been retreaded has decreased yearly since 1974. In the DOE report previously mentioned, that agency calls on the government to provide the necessary stimuli to the retreading industry to satisfy a spurring of demand for retreaded tires (pp. IV 1-IV-12). With the endorsement of the Treasury Department, Congress passed legislation (H.R. 3317) and on December 24, 1980, President Carter signed into law (PL 96-598), a measure to aid the retreading industry. The new law provides for credits or refunds of the manufacturers' excise tax on tread rubber where tax-paid tread rubber is wasted in the retreading process, used in the retreading of tires that are exported, sold to state or local governments, sold to nonprofit educational institutions, or sold as supplies for vessels or aircraft. It also modified the statute of limitations so that a credit or refund of the tread rubber can be obtained for a period of one year after the warranty or guarantee adjustment is made. Senator Robert Dole (R-KS) said in the Federal Register on October 1, 1980, that this legislation was needed to correct inequities imposed on retreaders and to stimulate the industry (S. 14033). However additional help is needed to establish the retreading of tires as a recycling industry.

In general, financial incentives are the most efficient mechanism to stimulate a market. Retreading, particularly passenger tire retreading is an industry which is experiencing financial difficulties. Competition from new tire industry is the main cause. The availability of inexpensive bias-ply tires which compete directly with retreads has made an adverse impact on profits, reducing the amount of case reserves that could have been reinvested for equipment. The purchase of retreaded tires by the federal government would provide a new stimulus for reversing the recent new growth trend in an energy conserving and waste recycling industry.

4. Tire retreading is a long-standing recycling industry, conserving oil and rubber.

Tire retreading is a current and long-standing recycling industry as was seen in World War II. It is and has been a major program in the conserving of both oil and rubber. General industry figures reveal that in 1979 there were 50 million retreaded tires sold in the United States; of which 30 million were for passenger car use, 4 million for light trucks, 14 million for heavy-duty truck use and 2 million for aircraft, off-the-road, industrial-life trucks, motorcycles, and agricultural equipment. Sales of retreaded tires in 1979 were approximately $1.6 billion, and that figure is projected to increase to $1.9 billion this year. The collective snow tire market for the last six years, as an example, may well have been greater for retreads that it has been for new tires. Government Procurement of retreaded tires could be a further stimulus in this area.

There exists a varying degree of acceptability of retreaded tires, as is the case with most recycled products. One out of five new replacement passenger car tires is a retread, while 98 percent of the world's airlines use retread tires.

Nearly 60 million worn tire casings that could be retreaded are discarded every year.

There are numerous cost and energy savings by using retreaded tires. The price of a retreaded passenger vehicle tire is 50 to 70 percent of the cost of a new tire; and the savings with truck tires is even greater. Due to the oil savings and price differentials of new tires to retreaded tires, the industry saves the consumer one dollar for every one dollar of retreaded sales.

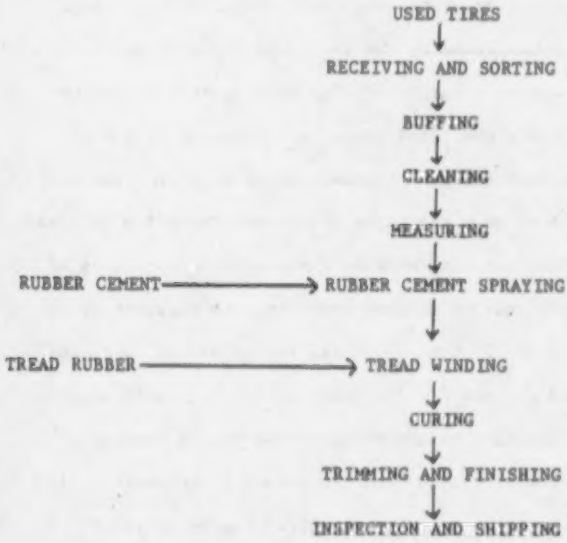
Based on the industry figure of 50 million tires, retreading conserves more than 400 million gallons of oil a year. The manufacturing of a new passenger tire consumes seven gallons of oil, on the average, while retreading the same size tire uses two and one-half gallons -- a savings of four and one-half gallons per tire. Retreading a truck tire saves an average of about fifteen gallons of oil.

5. Retreading represents a practicable and meaningful way that small business people can aid the country by undertaking a major recycling program.

Retreading saves more energy, pound for pound, than reducing tires to powdered or crumb rubber. An analogy -- returnable soft drink bottles represent a sound recycling project. But instead of washing and refilling the bottles, the recycling process should be to pulverize the returned bottles and manufacture new bottles from the recycled glass. It makes no sense to subsidize the recycling of worn out tires into the basic raw material while refusing to recognize the greater economic benefit to be realized by recycling tires as retreads. If the intent of section 23 is to decrease the amount of solid waste and to provide incentives for expansions in recycling industries, then the Senate should also encourage the use of recovered materials by federal agencies. Approximately 95 percent of the nation's retreading plants are owned and operated by small businessmen whose collective investment is roughly $1 billion. The remaining 5 percent of the firms are owned and operated by new tire manufactures.

The retreading process in fact reverses part of the new tire manufacturing process by buffing the worn tread back to an optimum point safely above the body plies, but below the base were the new tread should begin. The recycling process then begins by vulcanizing new rubber to the prepared casing. When the tire tread is reduced to the federally required tread base, that is 2/32 of an inch for passenger vehicle tires and 4/32 of an inch for truck tires, sound casings can be recycled, or retreaded, to perform and wear usually as good as a new tire.

A flowchart to highlight this process could look like:


USED TIRES
RECEIVING AND SORTING
BUFFING
CLEANING
MEASURING
RUBBER CEMENT
RUBBER CEMENT SPRAYING
TREAD RUBBER
TREAD WINDING
CURING
TRIMMING AND FINISHING
INSPECTION AND SHIPPING

The basic steps in retreading are:

(1) The selection of a satisfactory tire (casing) to be retreaded.

(2) Selection of the proper matrix in which to cure it.

(3) The preparation of the tire by buffing to accept the new rubber.

(4) Measure the buffed tire to assure selection of proper matrix.

(5) The application of the correct amount and size of new rubber.

(6) Selection of proper rim and curing tube.

(7) Placing the tire in a proper mold or pressure chamber at the proper temperature and pressure for the correct amount of time to properly cure the tread that has been applied.

The recycling of tires is quite different from the remanufacturing of metallic automotive parts such as carburetors, valves, and distributors because materials used in tires are petrochemically based and are, in fact, oil derived.

Following important preliminary steps, the tread rubber is applied to the worn casings. This can be done either by the mold cure process, which involves applying tread rubber either manually or with an extruding device, or by the precured tread process, where the tread rubber is purchased as a precured strip of rubber with the tread design. A tread design is molded into the rubber during the mold cure process when the tires are cured, depending on tread thickness, from 45 minutes to two hours in individual molds at temperatures of 295 degrees to 310 degrees F. To provide molding pressure, air or steam is used at pressures upwards of 140 to 175 psi. Precured treads may be cured at lower temperatures, at about 200 degrees F., for hours in multiple unit heaters using a vacuum or pressure differential to adhere the tread to the casing. Retreading does not remove an energy product from the stream of recycling. It provides energy savings after which the solid waste (tire) can be recycled via cryogenic grinding or pyrolysis.

While an average new tire uses about 35 pounds of rubber, an average retread requires 12.5 pounds of new rubber compound, and could subsequently be driven for as many miles as a new tire. Truck tires are retreaded an average of 1.8 times, and many are retreaded five or more times. Commercial jet aircraft tires are commonly retreaded seven or more times, a noteworthy statistic in view of the high performance and safety demands placed on them.

6. Tire retreading recovers substantial amounts of rubber polymer.

The Department of Energy projects over the next seven years a significant increase in the number of passenger tires to be retreaded. By applying the economic limitations to the maximum technical limits of 105 million passenger retreads by 1987, DOE projects that the feasible limit to retreading is 63 million passenger tires. Adding that figure to their projected number of truck and bus retreads totals a projected number of retreads to be 90.2 million. This results in a substantial amount of rubber polymer.

The amount of polymer that is recovered when a tire is retreaded is equal to the amount contained in the tire casing after buffing and before new tread rubber is applied. DOE's projection for retreading is based on the following formula:

$$\text{Target} = \frac{\text{Total Polymer In Retread Casings}}{\text{Total Polymer in New Tires} + \text{Total Polymer in Retread Casings} + \text{Total Polymer in Tread Rubber for Retreads}} \times 100$$

A passenger tire casing has 11.5 pounds of compound and a truck tire casing has 28 pounds of compound. Based on these figures and projections for 1987, 311, 816 long tons of polymer will be recovered.

In view of these considerations, Congress should consider the House recycling proposal. Such a move would provide a direct benefit to the Federal governments, to taxpayers, to the small business community and would aid an important and struggling recycling program.

As you know, the success and the future of the American economy is critically dependent upon the preservation of real opportunity for small business. Small businesses have historically provided much of the growth in jobs and in innovation, as well as being the provider of services and the deliverer of goods.

In 1976, research conducted for the National Science Foundation revealed that small businesses had been a more prolific source of innovation per research and development dollar than medium or large businesses.

Most small business firms are labor intensive. Currently over half the nation's labor force is employed by small businesses. Small businesses continue to remain among the leaders in employment creation. Research conducted at the Massachusetts Institute of Technology concluded that between 1969 and 1976 more than 86 percent of new jobs were provided by small businesses employing less than 500 employees. Some 80 percent of the new jobs were provided by firms having 100 employees or less.

Statistics released by the House Small Business Committee indicate that the combination of high interest rates and a weakened economy have threatened the stability of the American small business community. In 1982, 17,043 small businesses went bankrupt, and more than 47,000 small businesses filed for bankruptcy. That is the highest yearly total of bankruptcies since World War II, and just 32 shy of the 1921 yearly record.

Committee Chairman Parren Mitchell (D-MD) noted that in the midst of this economic downturn, small businesses have been faced with record high interest rates. In 1978, the prime rate averaged 9.1 percent, with inflation running at 7.3 percent. In 1981, the prime averaged 18.9 percent, with inflation at 9.2 percent. The "real interest rate" is computed as the difference between inflation and the prime rate. In 1981, the "real interest rate" was 9.7 percent, nearly five times higher than the historical average.

Figures compiled for the House Small Business Committee by Dun and Bradstreet on economic trends reveal a substantial decline in the economic well-being of the small business community.

BUSINESS FAILURES:

	1978	1979	1980	1981
Number	6,619	7,564	11,742	17,043
Change from previous year	-1,300	+945	+4,178	+5,301
% change from 1978		+14%	+77%	+157%

SOLE PROPRIETORSHIP INCOME: (Business & Professional):

	1978	1979	1980	1981	1982(est.)
Income-Billions (Constant 1972 $)	$60.7	$61.9	$60.4	$58.1	$54.8
% change from 1979			-2.4%	-6.1%	-11.6%

Given our nation's economic and unemployment difficulties, the Congress would be negligent to ignore the resources and potential contributions of small business enterprises. Their innovative spirit, their flexibility to meet new challenges, are crucial to our economic progress. The employment and entrepreneurial opportunities presented by the small business sector are too important to be less than fully realized. The bottom line is that America needs small business formation and growth.

In March 1982 President Ronald Reagan issued a report on the State of Small Business. Recognizing the importance of small business, and responding to economic needs and demands of this sector, the President asserted: "This Administration is committed to assuring unrestrictive access for small business to all segments of our economy" (p.4). He further states that ". . . this Administration is establishing an economic environment conducive to small business formation and growth" (p.5.). Now, this Administration could support a major recycling effort, set the Federal government up as a model which could provide a great stimulus to a small business recycling industry.

As an Association, we support the concept that tires no longer suitable for retreading could be processed for use in asphalt materials for road construction and mainenance. We publicly supported that position when Congress adopted specific policy formulas on asphalt highway aid in the Surface Transportation Assistance Act of 1982.

A program using ground rubber to displace or increase the effectiveness of petro-chemical products has the potential to consume a substantive percentage of scrap tires with optimum economic gain.

Although not widely used, research on asphalt rubber has been ongoing for over 30 years. The amount of oil in quantity and the grade of rubber vary, but the product is usually produced by reaching a minimum of 20 percent of rubber derived from scrap tires, with hot asphalt, over differing periods of time.

Asphalt rubber produces specific improved properties, such as higher degrees of elasticity and resilience, designed to retard reflective cracking and improved adhesion properties. Also, the addition of rubber to asphalt greatly improve the cold temperature characteristics of asphalt.

With regard to road construction, asphalt rubber is generally applied as a stress absorbing membrane, surface treatment or inner layer. It can be used in hot mix applications, both of open and dense graded designs, and has been proven most effective as a crack and joint filler in pavements.

While the lifetime costs of asphalt rubber may be considerably less than plain asphalt, the high front end cost make the marketing of asphalt rubber extremely difficult.

SUMMARY

The National Tire Dealers and Retreaders Association supports the House Committee on Energy and Commerce proposal to require Federal agencies to establish procurement guidelines to utilize recovered materials to the maximum extent practicable.

Mr. Chairman, we urge the Committee on Environment and Public Works to incorporate in S.757, the Solid Waste Disposal Act Amendments of 1983, Section 23 of the companion bill H.R. 2867, the Hazardous Waste Control and Enforcement Act of 1983. For clarification, we contend that the words "including tires" on page 55, line 12, as part of paragraph C "Guidelines" be amended to spell out "scrap tires" and "retreaded tires." And we believe that the committee report language should explain the intent of the new terminology.

By setting forth procurement guidelines which would insure the greater use of retreaded tires on Federal government vehicles and the use of tires no longer suitable for retreading in asphalt materials for road construction and maintenance, the Federal government has a great opportunity to set an example in conservation of valuable resources, recycling, and cost savings.

Schlegel®

SCHLEGEL CORPORATION
CORPORATE HEADQUARTERS

400 East Avenue
Post Office Box 23113
Rochester, New York 14692-3113

June 9, 1983

Committee on Environment and Public Works
United States Senate
Washington, D.C. 20510

Attention: Ms. Jo Cooper

Subject: S.757, a Bill to Enact the "Solid Waste Disposal Act Amendments of 1983"

Dear Ms. Cooper:

Schlegel Corporation and its subsidiary, Schlegel Lining Technology, Inc., manufacturers and installers of high density polyethylene (HDPE) lining systems, respectfully submit the following written Testimony for the Record and for the Committee's use in discussion of the above referenced bill.

We believe that land disposal of waste materials, including hazardous wastes, is a feasible, environmentally safe and cost effective means of meeting the nation's needs for facilities to handle residues from the manufacturing processes which provide us with the world's highest standard of living. Furthermore, in many localized instances of need, there are no economic alternatives to land disposal. More specifically, despite claims to the contrary by various parties, including a few government officials, all landfills do not leak. And, if the Act were to require that all new and expanded hazardous waste treatment, storage and disposal facilities use the "Best Available Technology" in the form of synthetic membrane liners, as outlined below, the incidence of leaky landfills would be greatly diminished, if not totally eliminated.

Our ability to substantiate these arguments is well founded. Schlegel Lining Technology is the world's and the country's leading manufacturer of high performance synthetic membrane lining systems. Among our clients are major European national, state and local governments and leading industrial and waste disposal companies in the U.S. and around the world.

We deem our product and our process to be among those able to provide the "Best Available Technology" in lining systems. The greater than seventy-five million square feet of liners we have made and installed over the thirteen years we have been in the liner business, attest to that fact. Attached hereto is a list of our installed projects in the United States. It includes projects as of mid-1982, and does not include installations in other countries.

The Schlegel Lining System is a result of fourteen years of hands-on development experience which has led to the issuance of patents throughout the world for our manufacturing and installation processes. These processes enable us to produce material 34 feet wide in essentially unlimited lengths (with standard panels greater than one-half acre in size), in thicknesses of 60 mil. to 200 mil. (1.5 - 5.0mm), and to install it with the lowest linear footage of weld seams per acre but with such welds having the same physical and chemical properties as the membrane itself.

We believe our system to be the strongest and most chemically-resistant lining system available. We have given the Committee staff a package of technical data regarding our system including (a) its breadth of chemical resistance against hazardous and toxic materials in wide ranging concentrations and (b) its ability to resist tear, puncture, tensile and biaxial stress forces well in excess of those normally encountered in landfill operations. Additionally, we have provided the EPA's Land Disposal Branch, at their request, with sheaves of our technical data, and have also contributed many of our test reports for inclusion in their new guidance document "Lining of Waste Impoundment and Disposal Facilities".

Our system certainly meets the requirements for maintaining integrity during the useful life of a covered landfill in the U.S. (30 years, by RCRA definition) and for very substantial periods thereafter. Laboratory tests on our material underway since the late sixties, extrapolated, show useful life in physically and chemically stressful situations of greater than thirty years when left uncovered and virtually perpetual when covered. (High density polyethylene, or "HDPE", the base material in our system, has been used in high tension cable and pipe applications since after World War II without noticeable environmental degradation.)

It is without hesitation, then, that we unequivocally state that synthetic membrane lining systems can and do work if:

1. They are appropriately designed (preferably double lined, with leak detection, leachate collection and groundwater monitoring systems);

2. The membrane liner consists of a very high grade resin material (such as the HDPE resins we have had specially formulated for us) in a pure state (without fillers, plasticizers or other degradable additives) with the breadth of chemical resistance required for the wastes likely to be contained;

3. The chemical resistance capability is verified through a waste compatability testing and monitoring procedure;

4. The membrane liner material is sufficiently thick (at least 80 mil., versus the current 30 mil. regulatory minimum) to avoid tearing or penetrations resulting from the stresses incurred during site preparation and construction activities, waste filling or subsequent operation, including failure as a result of stress resulting from anomalies in sub-surface conditions (such as rocks, subsidence, etc.);

5. The membrane liner panels are sufficiently wide and long to minimize the number of weld seams (which, historically, have been the source of most traditional lining systems failures);

6. The installation is carried out with joining technology (such as extrusion welding) which produces 100% bonded seam strength for those seams which are required;

7. System suppliers (manufacturers and installers - preferably an integrated, single source) meet stringent financial and experience qualification requirements and exercise appropriate quality control procedures to insure conformity of membrane resin characteristics with minimum technical specifications and consistency of membrane resin characteristics over time;

8. Inspections are made during installation, the active life of the facility and periodically thereafter; and

9. A final cover of appropriate thickness is used after closure.

The occasional skepticism surrounding synthetic lining systems and land burial of wastes in general results in great part from failure of both the regulating and regulated community, and the public at large, to keep pace with these technological advancements, as well as from a curious reluctance on the part of the Government to require their use. In this regard, we in the United States trail significantly behind our counterparts in Europe where systems such as those espoused in this testimony are commonplace, and have been for years (even for municipal and sanitary landfills), and where systems such as those which technically could comply with current EPA regulations (30 mil. thickness, single lined) would simply not be tolerated.*

There is, of course, a cost to meeting these standards. The incremental cost compared to current regulatory requirements is, however, de minimis, particularly when viewed in the context of the serious environmental problem which could be solved and the public debate which could be put to rest. And, these standards are not, technologically, difficult to meet. As noted above, they constitute the prevailing standards in Europe, are recognized as state-of-the-art by leading academicians, consultants and other professionals in the country and around the world and are increasingly adhered to on a voluntary basis in the United States by environmentally conscious industry leaders. They are not universally followed, however, because -- simply -- they exceed what has been, and currently is, required by law and because advances in the law have been steadfastly resisted by groups of entrenched purveyors of now-outmoded and inferior lining and containment technologies, the same groups who have delivered to us the landfills which "all leak" in the eyes of the public and those setting the next regulatory and policy stage. What an unfortunate handicap -- guilt by association -- for those seeking to promote legitimate technological advancements in the synthetic lining field.

*The difference in strength characteristics between the current regulatory minimum - 30 mil. - and our recommendation for minimum thickness - 80 mil. - can be scientifically quantified by a variety of standards and we have provided the EPA ample technical data in this regard. A simple illustration is to take a piece of 30 mil. liner (the thickness of a folder or report cover for example) in your hand and poke it with a pen. It will normally pierce. Imagine this material as a hazardous waste landfill liner. A piece of 80 mil. HDPE liner, by contrast, can be driven on by a truck or deflect a thrown dart without puncturing.

We, therefore, advocate strong, clear legislation and regulations mandating the use of the Best Available Technology with respect to synthetic lining systems in this country. Without this action, escape hatches for those prone to take shortcuts will remain and the public skepticism of landfilling of wastes, and the false conflict between questionable landfilling practices and higher-cost, underdeveloped alternative treatment and disposal technologies will thereby be perpetuated. Should a lax or bashful regulatory attitude prevail, whether to placate current lining system suppliers with limited capabilities or in the name of cost minimization for the regulated community (both questionable precepts for regulatory action in the hazardous waste field and the environmental area in general), all landfills will leak, synthetic liners will continue to be analogized to "garbage bags", "bandaids", etc., as has been fashionable in recent journalistic and public attacks on the current regulatory scheme, and society will turn its back on a real and environmentally appropriate solution to the hazardous waste disposal problem. Should, however, our Legislators and Regulators require the use of the Best Available Technology for synthetic liners as outlined herein, land disposal can be permitted with a clear conscience and several greater public interests will be served.

Despite our belief in synthetic lining systems, Schlegel Corporation endorses the concept of reducing the amount of hazardous waste needing to be landfilled through process-engineered waste generation reduction, waste recycling, waste reuse and treatments rendering waste non-hazardous. In the final analysis, however, we see the land burial alternative as not only feasible and safe, but as the most economically viable approach for most of the nation's industrial byproducts.

We therefore hope that the Committee will see fit to require that land disposal be done with the highest regard for optimum protection of public health and the environment.

We would be happy to provide additional testimony or support for our position if requested.

Sincerely,

George S. McIsaac
Senior Vice President

GSM/scb
Enclosures

SCHLEGEL LINING TECHNOLOGY, INC.

LIST OF PREVIOUSLY INSTALLED PROJECTS

Sheet 1

Name of User:	Name of Plant:	Location of Plant:	Application:	Commission Year	Size in Ft^2
IBM Corporation	Waste Treatment	Endicott, N.Y.	Chemical Waste Disposal	1974	175,000
Florida Power & Light	Putnam Plant	East Palatka, Fla.	Precipitation Neutralization Basins	1976	90,000
Lucidol Division of Penwalt Corp.	Piffard Plant	Piffard, N.Y.	Waste Treatment	1976	52,000
Florida Power & Light	Cape Canaveral	Titusville, Fla.	Neutralization Basin	1977	15,000
American Synthetic Rubber Corp.	ASRC	Louisville, Ky.	Neutralization and Storm Run-Off Holding Pond	1977	113,000
Lucidol Division of Penwalt Corp.	Lucidol Ft.Erie	Ft. Erie, Canada	Concrete Acid Tanks	1977	3,000
NYS Dept. of Transp.	NYS Barge Canal	West Seneca, N.Y.	Lining Barge Canal Prism	1977	37,768
Dayton Power & Light	J.M. Stuart Sta.	Aberdeen, Ohio	Neutralization Basin	1978	75,000
Florida Power & Light	St. Lucie No.1	Hutchinson Isl., Fla.	Neutralization Basin	1978	40,000
Florida Power & Light	Martin Plant	North of Indian Town, Florida	Precipitation, Neutralization, Stormwater	1978	90,000
Public Service Co. of New Mexico	San Juan Station	Farmington, N.M.	Treatment Plant Basin	1978	180,000

SCHLEGEL LINING TECHNOLOGY, INC.

LIST OF PREVIOUSLY INSTALLED PROJECTS

Sheet 2

Name of User:	Name of Plant:	Location of Plant:	Application:	Commission Year	Size in Ft^2
NYS Dept. of Transp. (ABC Paving Co.)	NYS Barge Canal	Buffalo, N.Y.	Lining North Slope	1978	59,000
Somex, Ltd.	Bartlesville	Bartlesville, Okla.	Lining in Settling Basin	1978	75,047
Minnesota Mining & Manufacturing Corp.	3M Plant	Cordova, Ill.	Bayers Pond Liner	1978	9,600
Keefe Environmental	Epping, N.H.	Epping, N.H.	Lagoon	1979	17,850
Container Corp. of America		Fernandinp Beach, Florida	Lagoon	1979	22,400
Ernest F. Donley's Sons, Inc.	Cleveland Electr. Illum. Ashtabula "C" Plant	Cleveland, Ohio	Chemical Waste Basin	1979	19,848
General Electric	Phenol Mfg. Plant	Mt. Vernon, Ind.	Holding Pond	1979	50,000
Wisconsin Elec. Power	Pleasant Prairie Power Plant	Kenosha, Wisc.	Retention Pond	1979	124,000
Public Service Co. of New Mexico	Reeves Station	Albuquerque, N.M.	Wastewater Discharge Evaporation Pond	1979	85,960
Rochester Gas & Electric Co.	Station #9 - Station #7 -	Rochester, N.Y.	Spill Pond - Spill Pond -	1979	6,440 6,440

SCHLEGEL LINING TECHNOLOGY, INC.

LIST OF PREVIOUSLY INSTALLED PROJECTS

Sheet 3

Name of User:	Name of Plant:	Location of Plant:	Application:	Commission Year	Size in Ft^2
Lucidol Division of Pennwalt Corp.	Geneseo	Geneseo, N.Y.	Line 25'x4' above grade tank	1979	-
Englehart Industries Englehart, Okla.	Port of Catoosa Okla. Kansas Grain	Port of Catoosa Oklahoma	Storm Water Retention Basin at Fly Ash Storage Facility	1979	45,200
Cleveland Electric Illuminating Co.	CEI Plant	Ashtabula, Ohio	Chemical Waste Basin A & B	1979	24,821
IBM, Owego	IBM	Owego, N.Y.	Industrial Waste Basins (3)	1979	12,690
Northern Indiana Public Service Co.	Dean H. Mitchell	Gary, Indiana	Demineralizer Floor Lining	1980	2,000
Shattuck Chemical Co.	Titan Road	Littleton, Colo.	Process Recycle Basin, Ash Storage and Leachate Collection Area	1980	297,000
IBM Austin	IBM	Austin, Texas	Storage Lagoon	1980	112,800
Florida Power & Light	Sanford	Sanford, Fla.	Neutralization Pond	1980	12,819
Public Service Co. of Colorado	Pawnee Station	Brush, Colorado	Series of Ponds	1980	2,800,000
Florida Power & Light	Putnam Plant	East Palatka, Fla.	2 Holding Ponds & 2 Neutralization Ponds	1980	90,000

SCHLEGEL LINING TECHNOLOGY, INC.

LIST OF PREVIOUSLY INSTALLED PROJECTS

Sheet 4

Name of User:	Name of Plant:	Location of Plant:	Application:	Commission Year	Size in Ft^2
Chemtronics	Asheville	Asheville, N.C.	Waste Water Lagoon	1980	22,596
CEI, Cleveland Electric Illuminating Co.	Cleveland Electr./ Gilbert Common.	Lakeshore, Ohio	Chemical Waste Basin	1980	16,000
General Electric	Mount Vernon	Mt. Vernon, Ind.	Phenol Recovery Basins	1980	18,000
Union Carbide (Acres American)	Uravan	Uravan, Colorado	Uranium Tailings Pond	1980	28,000
CECOS	CECOS	Niagara Falls, N.Y.	Industrial Hazardous Landfill, Subcell	1980	40,000
Lucidol Division of Pennwalt Corp.	Piffard Plant	Piffard, N.Y.	Waste Treatment, Second Basin, West Basin	1980	45,192
Gulf Oil & Chemical	Cedar Bayou Plant	Baytown, Texas	24 Hr.Retention Basin Lining	1980	48,404
Alum. Co. of America (Commercial Contract.)	Alcoa, Tenn.	Alcoa, Tenn.	Settling Lagoon Liner	1980	54,000
Stauffer Chemical Co.	Louisville, Ky.	Louisville, Ky.	Sludge Holding Pond	1980	59,400
Florida P & L	Manatee Plant	Parrish, Fla.	Neutraliza. Basin Liners (2)	1980	16,032
Browning-Ferris Ind.	Quarantine Road Landfill	Baltimore, Md.	Waste Basin	1980	141,300
University of Michigan Morton Salt	Morton Salt, Fairport Mine	Grand River, Ohio	Water Retention Basin	1981	55,000

SCHLEGEL LINING TECHNOLOGY, INC.

LIST OF PREVIOUSLY INSTALLED PROJECTS

Sheet 5.

Name of User:	Name of Plant:	Location of Plant:	Application:	Commission Year	Size in Ft^2
Gorton/General Mills	General Mills	Millville, N.J.	Holding Basin Liner	1981	100,200
Greenville Utilities	Greenville	Greenville, N.C.	Presettling Impoundment	1981	420,900
Georgia Power	Scherer Plant	Macon, Georgia	2 Boiler Cleaning Waste Ponds	1981	81,000
Dayton Power & Light	Aberdeen Plant	Aberdeen, Ohio	Pipe Penetrations	1981	-
IBM, Endicott	Endicott, N.Y.	Endicott, N.Y.	General Rinse Tank	1981	842
IBM, Austin	Austin, Texas	Austin, Texas	Chemical Trench	1981	2,367
Texas A&M University	Texas A&M	College Sta., Tex.	Experimental	1981	5,541
Houston Intern'l Miner.	HIMCO	Hawthorne, Nevada	Holding Pond Liners	1981	80,227
Florida Power & Light	Ft. Myers Plant	Ft. Myers, Florida	Neutralization Basin	1981	5,896
IBM, Austin	Austin, Texas	Austin, Texas	Clar. & Equal. Tank Underliner	1981	24,750
Publ.Serv. Colorado	Pawnee Station	Brush, Colorado	Evaporation Pond	1981	753,200
Gilman Paper Co.	St. Mary's Kraft	St. Mary's, Georgia	Black Liquor Pond Liner	1981	53,740
Stauffer Chemical	Lemoyne Plant	Axis, Alabama	Lecreek Pond, Sludge Basin	1981	41,200
Mobil Oil Corp.	Port Mobil Terminal	Staten Island, N.Y.	Ballast Water Tank Lining	1981	47,700

Sheet 6.

SCHLEGEL LINING TECHNOLOGY

LIST OF PREVIOUSLY INSTALLED PROJECTS

Name of User	Name of Plant	Location of Plant	Application	Commission Year	Size in Ft^2
Cyprus Mining	Boulder Creek	Bagdad, Arizona	Leach Dam Lining	1981	90,400
IBM, Owego	Owego Waste Treatment Plant	Owego, New York	4 Tanks-Waste Treatment	1981	9,040
IBM, Austin	Storage Lagoon	Austin, Texas	WCF Lagoon, Third Liner	1981	42,300
ITT Rayonier	Jesup Plant	Jesup, Georgia	Black Liquor Pond	1981	35,800
U.S.Ecology, Inc.	Texas Ecologists	Robstown, Texas	Hazardous Waste Pond 26 Liner	1981	143,000
Stauffer Chemical	Cold Creek Organic	Bucks, Alabama	Waste Water Contain. Pond	1981	32,840
Publ.Serv. New Mexico	San Juan Station	Farmington, New Mex.	Holding Ponds	1981	1,494,500
Phillips Petroleum	Mex-Tex NGL Cavern Storage	Gaines County, Tex.	Brine Pond	1982	317,000
City of Lubbock	Lubbock Terminal Storage	Lubbock, Texas	Terminal Storage Reservoir Liner	1982	1,649,390
Kennecott Corp.	Chino Mine	Bayard, New Mexico	Chino Mine Modernization	1982	230,436
Phillips Petroleum	Aneth Field Batteries	Montezuma Creek, Utah	Emergency Overflow Pits	1982	41,985
Phillips Petroleum	Borger Refinery	Borger, Texas	Borger Modernization Project	1982	177,542

Sheet 7.

SCHLEGEL LINING TECHNOLOGY

LIST OF PREVIOUSLY INSTALLED PROJECTS

Name of User	Name of Plant	Location of Plant	Application	Commission Year	Size in
U. S. Navy	Naval Support Facility	Diego Garcia	Curtain Wall	1982	91,80
Clermont Environmental Reclamation Co. (CER)	Secured Cell #7	Williamsburg, Ohio	Hazardous Waste Landfill	1982	262,50
Phillips Petroleum	Goldsmith Gasoline Plant	Odessa, Texas	Double Liner at Emergency Waste Water Pit	1982	73,40
Chevron Standard Calgary, Alberta	Ft. Saskatchewan Fractionization Plant	Ft. Saskatchewan, Alberta, Canada	North Brine Pond Lining	1982	451,82
Celanese Plastics & Specialties	Derivatized Guar Bean Expansion	Vernon, Texas	Aeration Basin	1982	68,1
Cleveland Electric Illuminating Co.	Lakeshore Plant	Cleveland, Ohio	Liner for Chemical Waste Treatment Basin	1982	4,4
MacMillan Bloedel	Pine Hill II Proj.	Pine Hill, Alabama	Line Aeration Basin	1982	713,7
Louisiana Tech.Univ.	La. Tech. Campus	Ruston, Louisiana	Salt Gradient Solar Pond	1982	8,8
Sherritt Gordon Mines	Alberta, Canada	Ft.Saskatchewan, Alb.	Gypsum Sludge Pond	1982	1,230,0
Procor, Ltd.	LPG Storage Div.	Redwater, Alberta	Brine Pond	1982	682,8

SCHLEGEL LINING TECHNOLOGY

Sheet 8.

LIST OF PREVIOUSLY INSTALLED PROJECTS

Name of User	Name of Plant	Location of Plant	Application	Commission Year	Size in Ft^2
IBM, Lexington	IBM Wastewater Treatment Facility	Lexington, Kentucky	Double Lining System for Concrete Tanks	1982	40,500
Mobil Oil	Port Mobil Terminal	Staten Island, N.Y.	Storm Water Holding Pond	1982	53,058